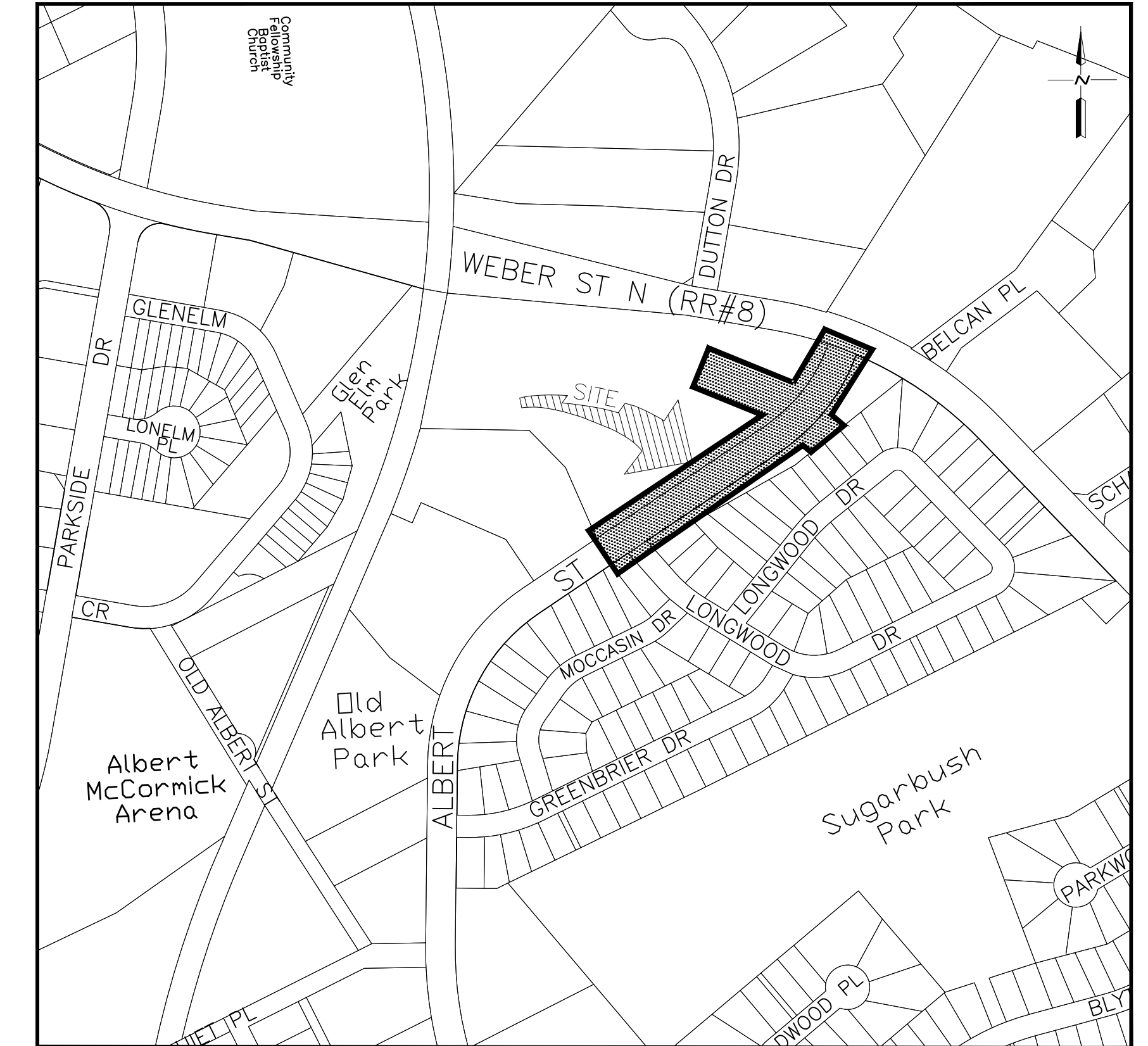




ALBERT STREET WATERMAIN REPLACEMENT AND ROAD AND DRAINAGE IMPROVEMENTS (LONGWOOD DRIVE TO WEBER STREET NORTH) WATERLOO, ONTARIO

CONTRACT RFT25-01

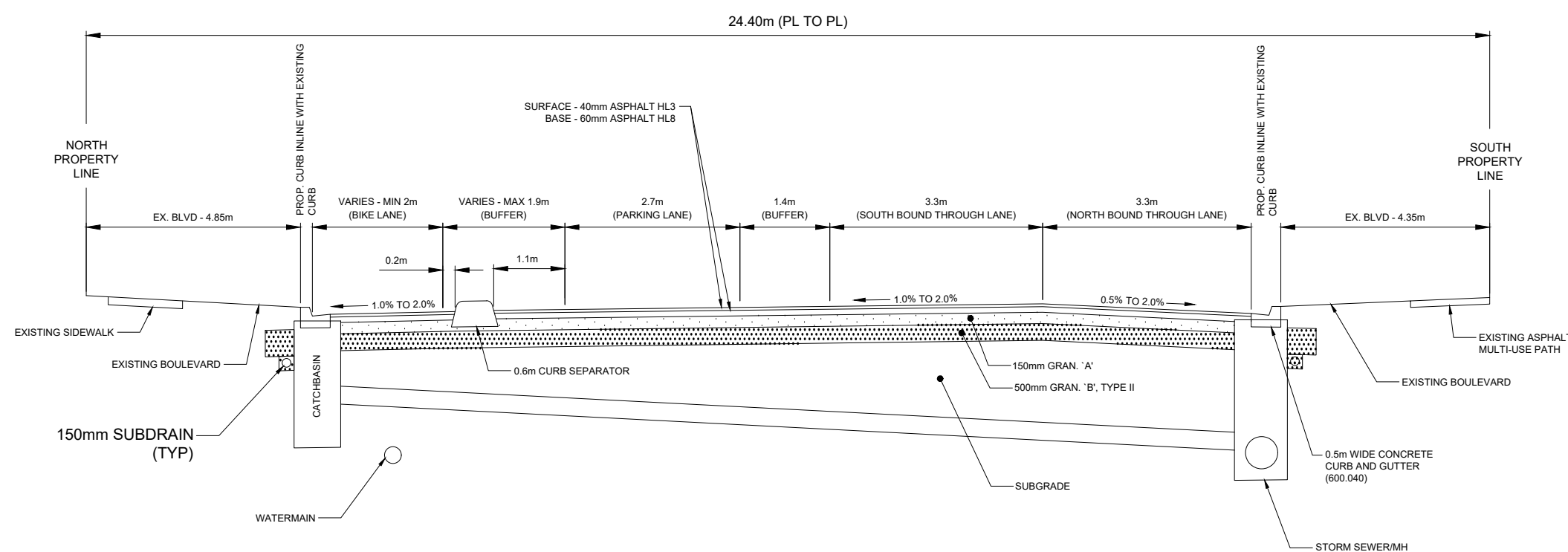


KEY PLAN
N.T.S.

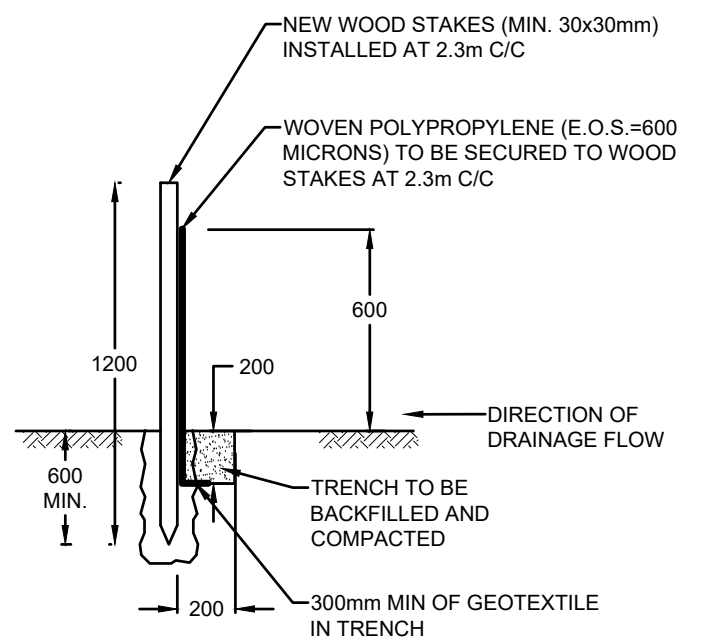
DRAWING INDEX

DWG NO.	DESCRIPTION
15-1572	DETAILS PLAN
15-1573	ALBERT STREET REMOVALS 0+980 TO 1+240
15-1574	ALBERT STREET PLAN AND PROFILE 0+980 TO 1+120
15-1575	ALBERT STREET PLAN AND PROFILE 1+120 TO 1+240
15-1576	CULVERT SECTION 2+000 TO 2+095
15-1577	ALBERT STREET SECTIONS 1+000 TO 1+110
15-1578	ALBERT STREET SECTIONS 1+120 TO 1+230
15-1579	CULVERT SECTION SECTIONS 2+000 TO 2+050
15-1580	EROSION AND SEDIMENT CONTROL PLAN
15-1581	ALBERT STREET GRADING PLAN
15-1582	PAVEMENT MARKING AND SIGNAGE PLAN
15-1583	CHANNEL BY-PASS PUMPING PLAN
15-1584	RESERVED



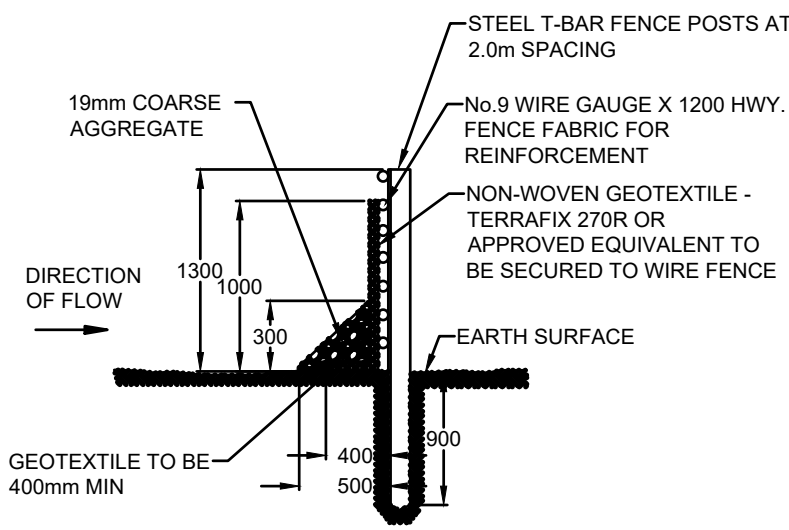


PROPOSED TYPICAL CROSS SECTION
N.T.S.



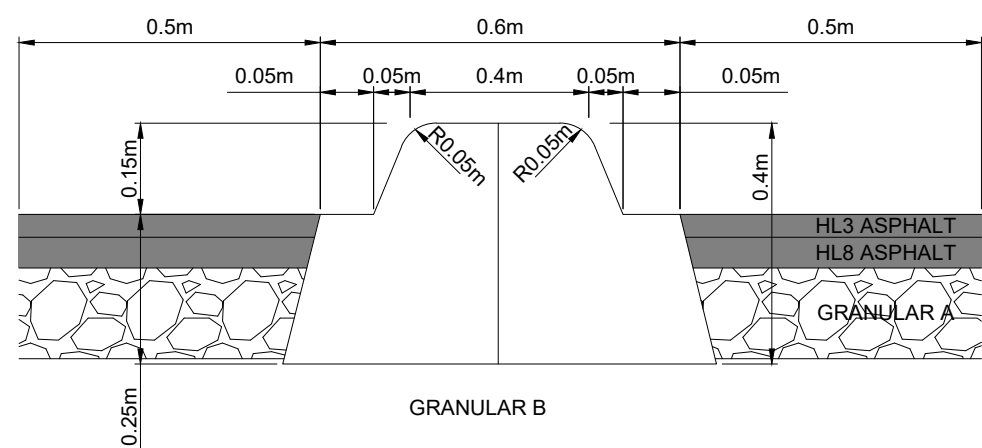
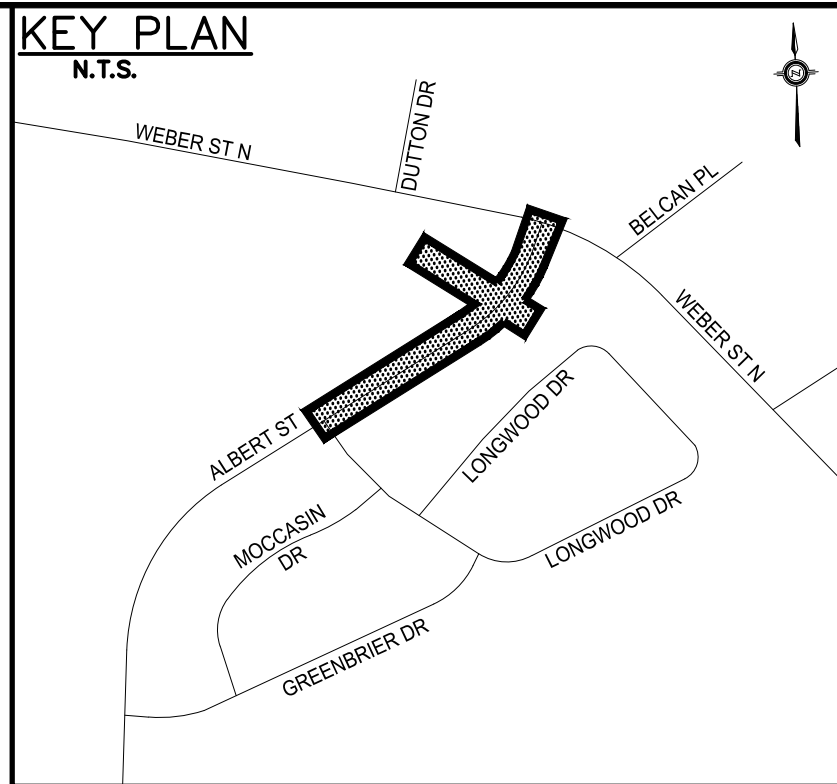
- NOTES:
1. TO BE READ IN CONJUNCTION WITH OPSD 219.110.
 2. SEDIMENT FENCE TO REMAIN IN PLACE UNTIL FINAL LANDSCAPING IS READY FOR THE LOT.
 3. CLEAR STONE BOTH SIDES AT OVERFLOW LOCATION.

SEDIMENT FENCE
LIGHT DUTY
N.T.S.



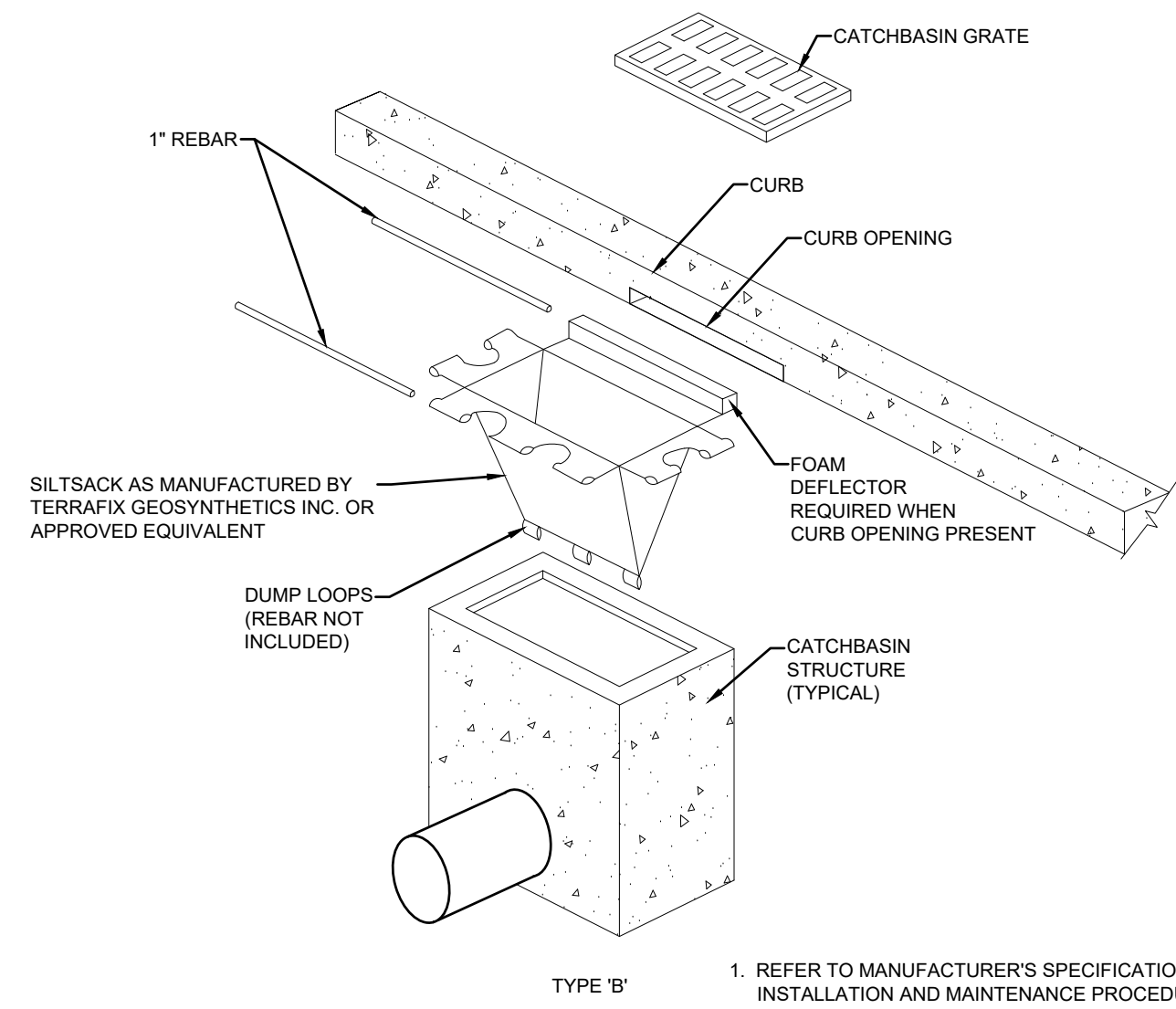
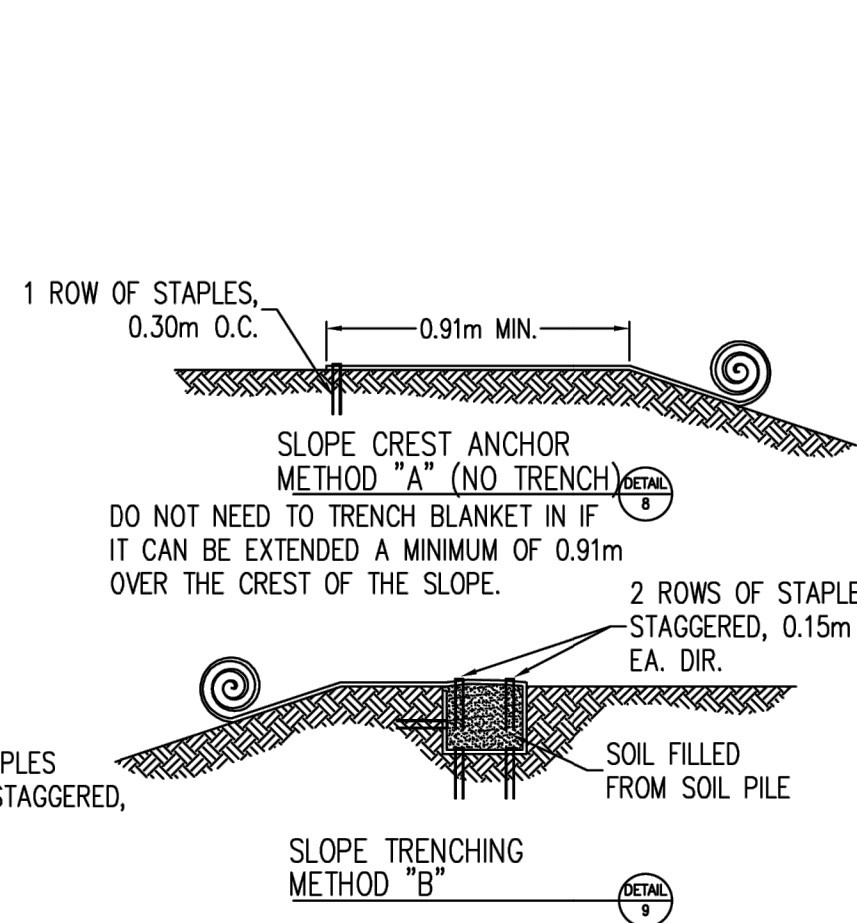
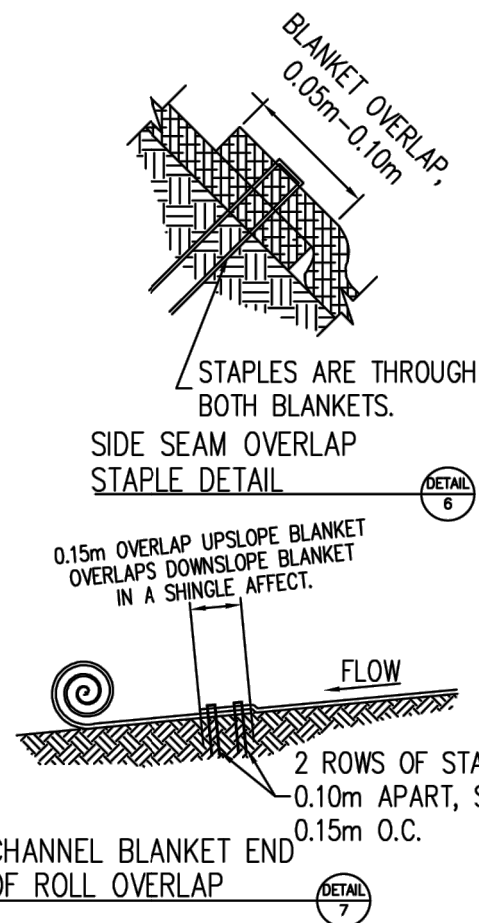
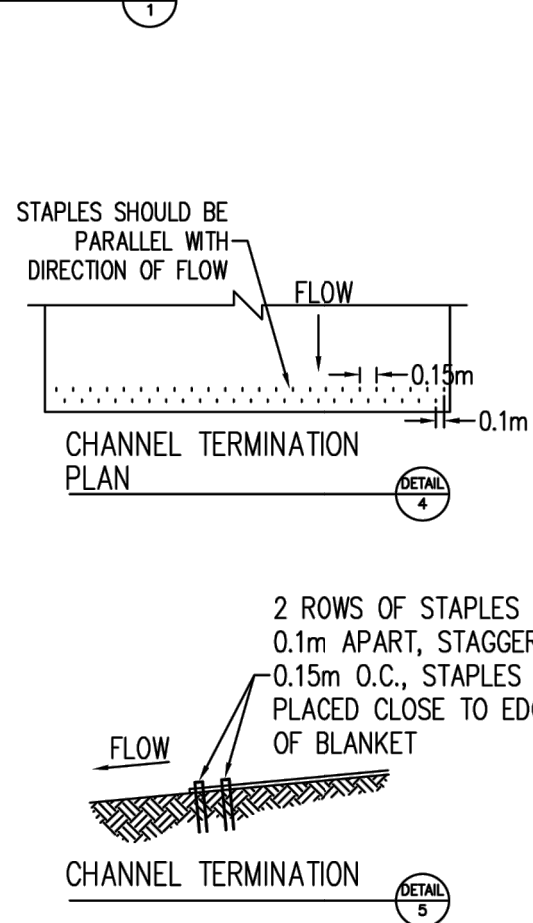
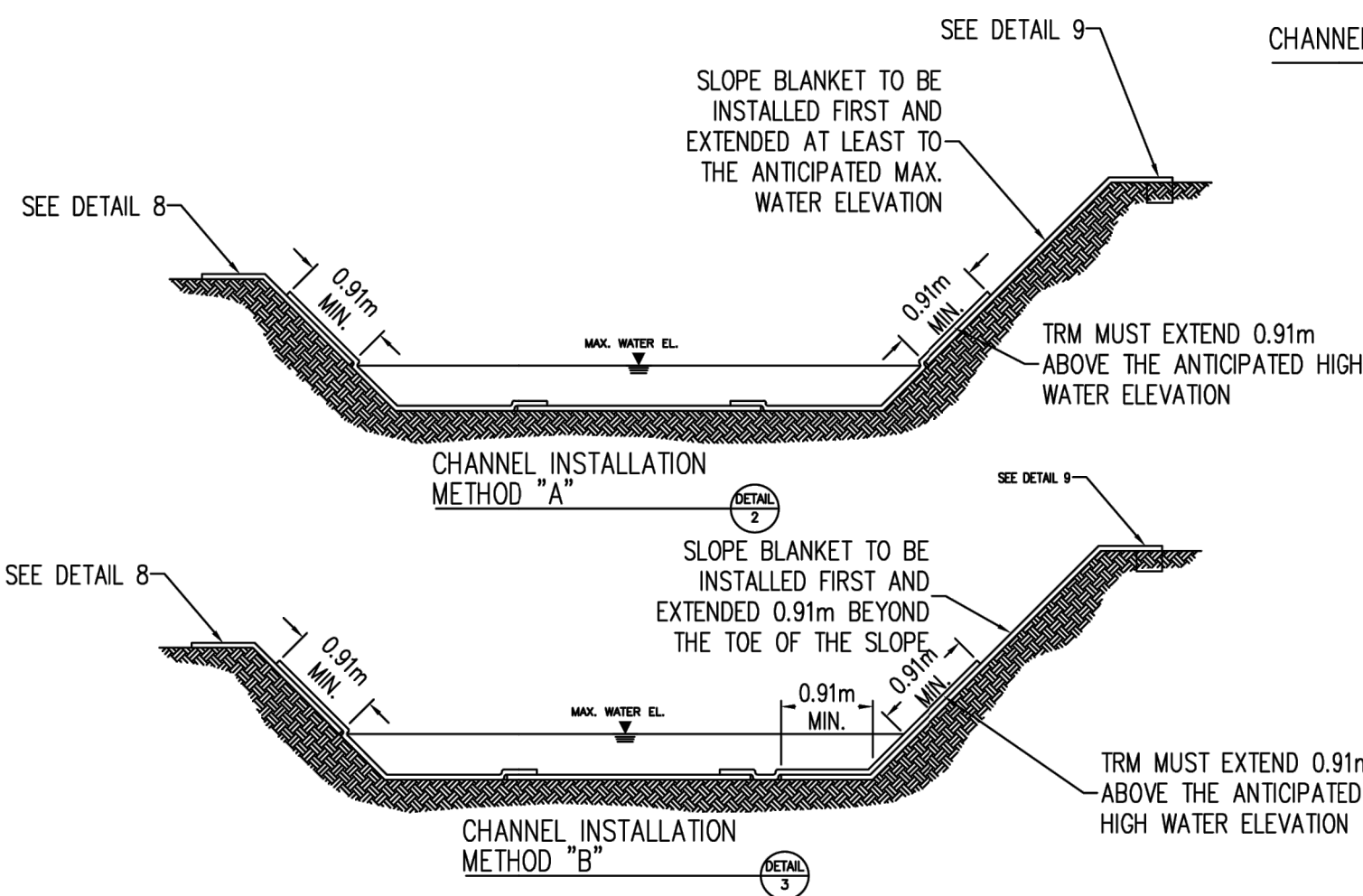
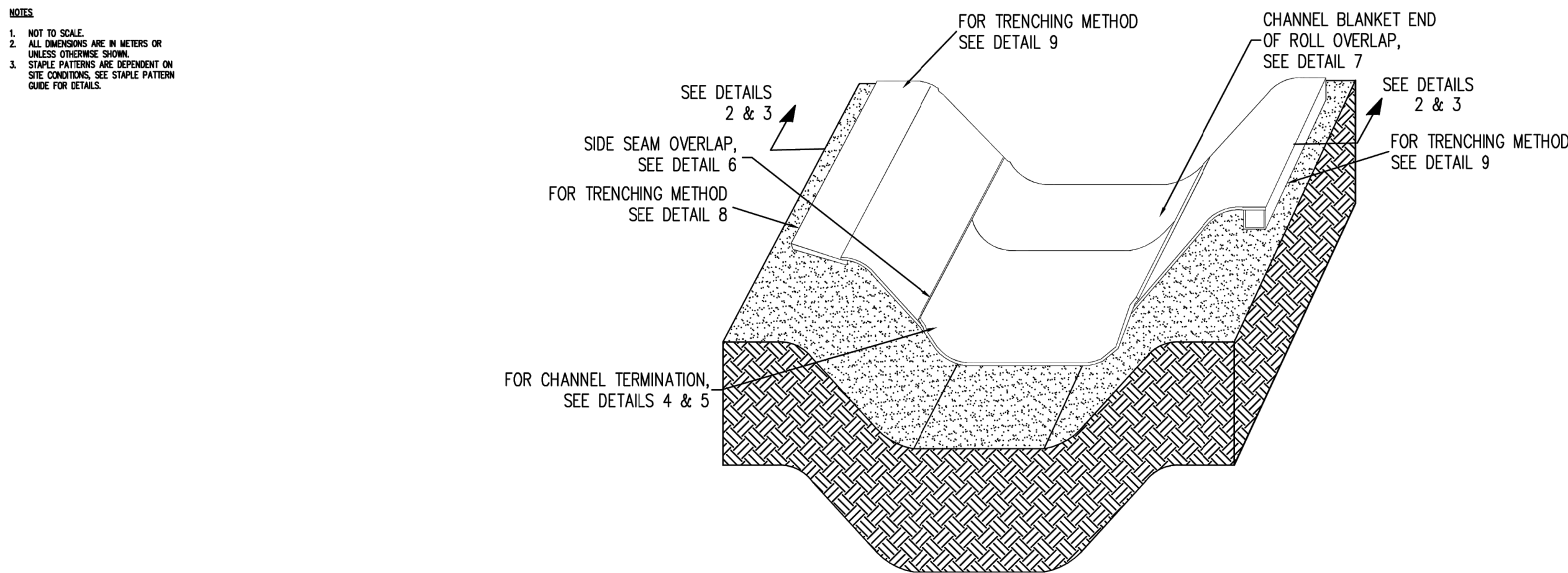
- NOTES:
1. TO BE READ IN CONJUNCTION WITH OPSD 219.130.

SEDIMENT FENCE
HEAVY DUTY - NO TRENCH
N.T.S.



0.6m SEPARATOR CURBS (CROSS SECTION)
N.T.S.

- NOTES:
1. NOT TO SCALE
 2. ALL DIMENSIONS ARE IN METERS OR UNLESS OTHERWISE SHOWN
 3. STAPLE PATTERNS ARE DEPENDENT ON SEE CONDITIONS. SEE STAPLE PATTERN GUIDE FOR DETAILS



SILTSACK DETAIL
N.T.S.



CONTRACT RFT25-01

BENCHMARKS:

BM. WO-14 ELEV=338.596m
NAIL IN HYDRO POLE (TRANSFORMER), 40m WEST OF WAGNERS CORNER, SOUTH SIDE OF REGIONAL ROAD 15.

CC100 ELEV=334.805m
OUT CROSS SET IN NORTH EAST CORNER OF RIGHT OF WAY OF BOX CULVERT SOUTH WEST CORNER OF LONGWOOD DRIVE AND ALBERT STREET INTERSECTION.

S.J.P. 01/10/25	TENDER -- ADDENDUM 1
S.J.P. 12/06/24	ISSUED FOR TENDER
S.J.P. 11/13/24	ISSUED FOR 100% DESIGN
S.J.P. 10/01/24	ISSUED FOR 90% SUBMISSION
G.E.A. 09/12/24	ISSUED FOR GRCA APPROVAL
G.E.A. 07/30/24	ISSUED FOR 60% SUBMISSION
G.E.A. 06/11/24	ISSUED FOR 30% SUBMISSION
INT. DATE	REVISIONS

CITY OF WATERLOO
INTEGRATED PLANNING AND PUBLIC WORKS

SEAL (GEI)

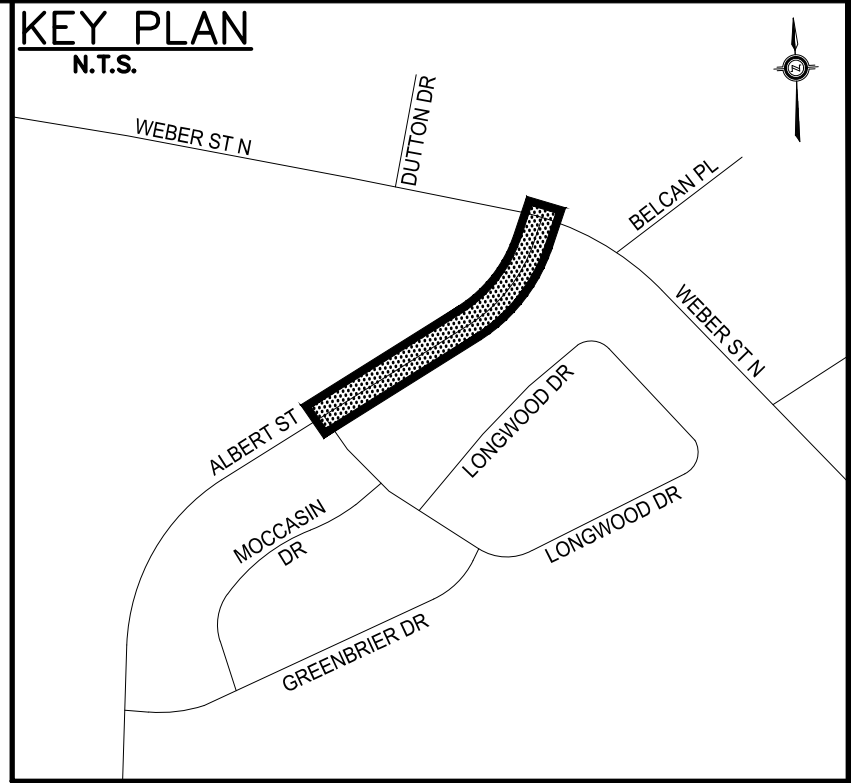
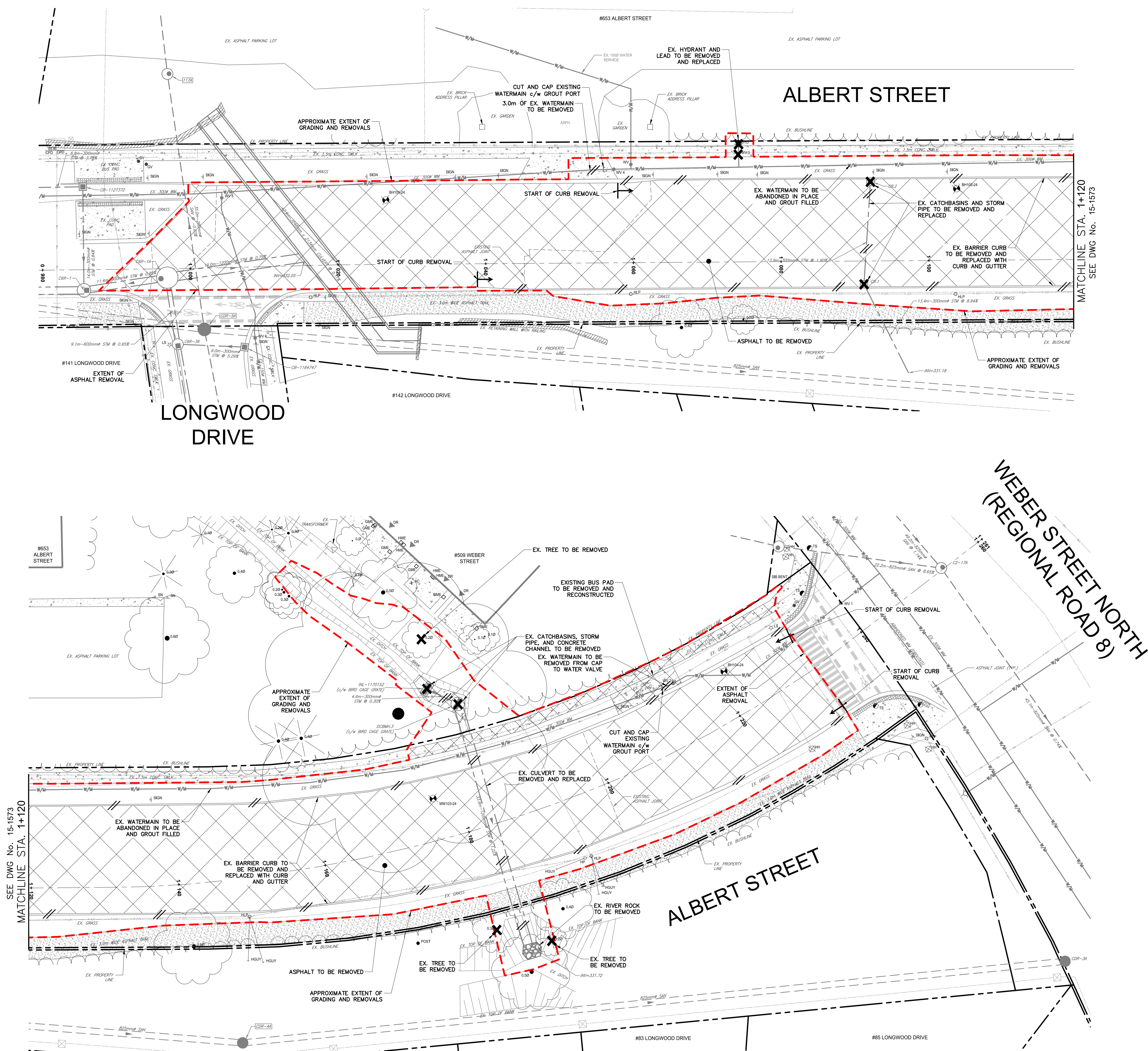
DETAILS PLAN

CITY OF WATERLOO

DATE:	MAY 2024	DESIGNED BY:	S.J.P.
SCALE:	AS NOTED	DRAWN BY:	E.A.
FIELD BK. PAGE	DATE	CHECKED BY:	S.J.P.
		DRAWING NO.	

15-1572

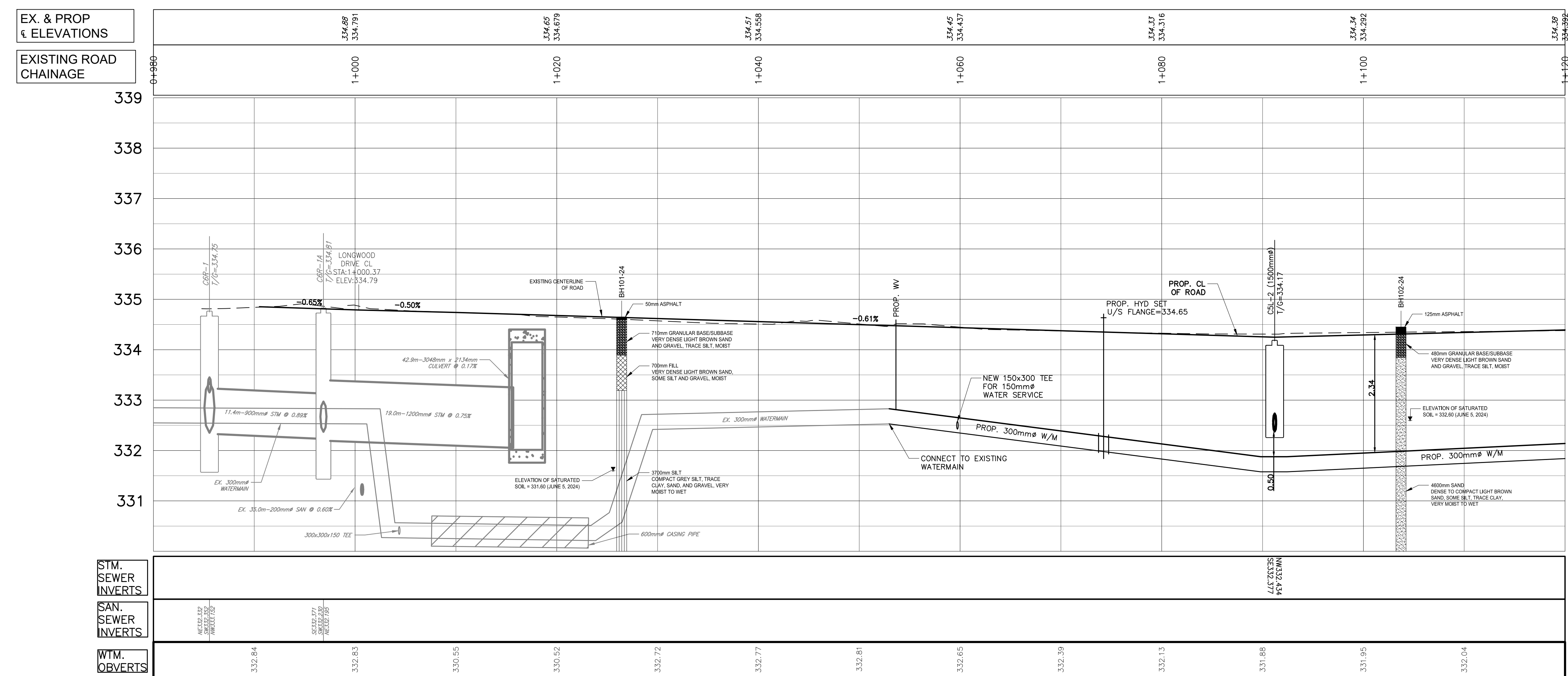
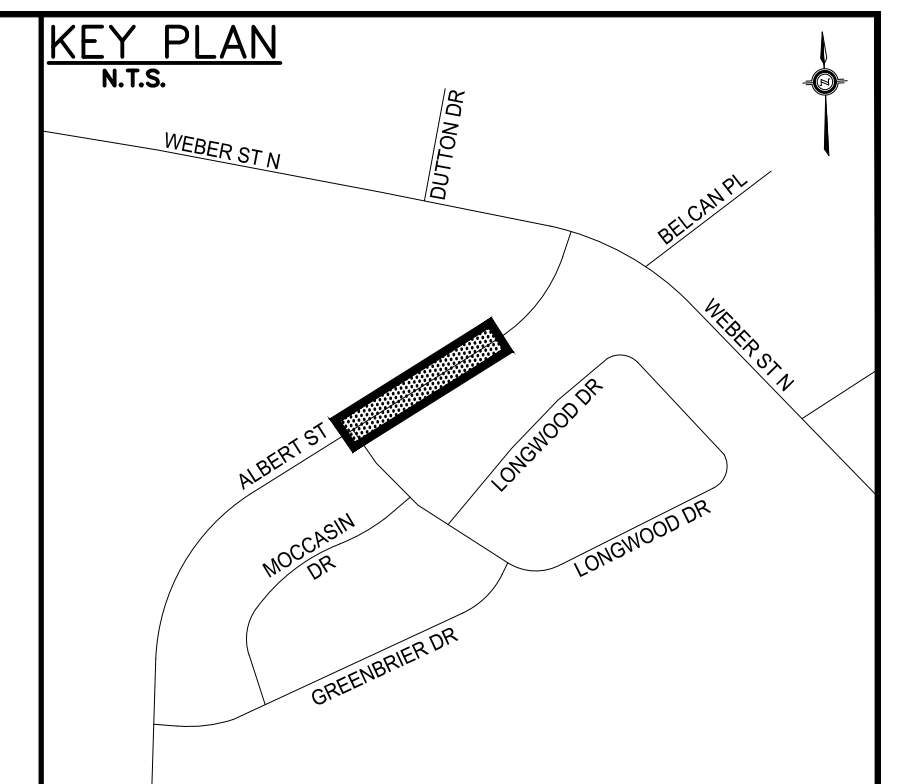
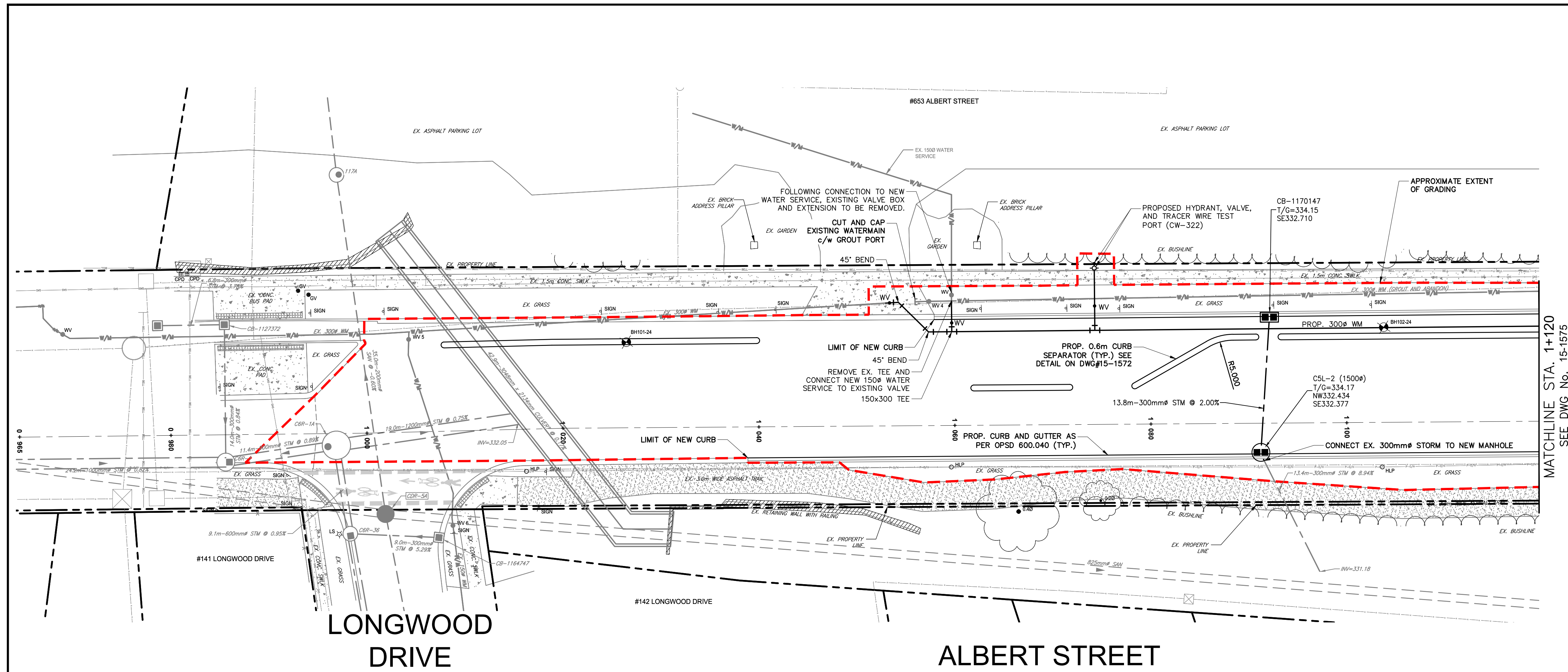
424059



- LEGEND**
- EXISTING STORM MH, CBMH, DGBMH, DGB, CB
 - EXISTING SANITARY MH
 - HYDRO POLE/LIGHT STANDARD
 - PROPERTY LINE
 - EXISTING SANITARY SEWER
 - EXISTING STORM SEWER
 - EXISTING WATERMAIN
 - TO BE REMOVED
 - EXISTING FIRE HYDRANT
 - EXISTING WATER VALVE
 - BOREHOLE
 - EXISTING GAS SERVICE
 - EXISTING CABLE
 - EXISTING BELL
 - CONCRETE REMOVAL
 - ASPHALT REMOVAL
 - EXTENT OF GRADING

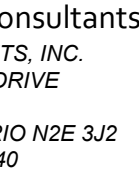


CONTRACT RFT25-01	
BENCHMARKS:	
BM: WD-14 ELEV=338.596m NAIL IN HYDRO POLE (TRANSFORMER), 40m WEST OF WAGONS CORNER, SOUTH SIDE OF REGIONAL ROAD 15	
CC100 ELEV=334.805m CUT CROSS SET IN NORTH EAST CORNER OF RIGHT OF WAY OF BOX CULVERT SOUTH WEST CORNER OF LONGWOOD DRIVE AND ALBERT STREET INTERSECTION.	
S.J.P. 01/10/25	TENDER - ADDENDUM 1
S.J.P. 12/06/24	ISSUED FOR TENDER
S.J.P. 11/13/24	ISSUED FOR 100% DESIGN
S.J.P. 10/01/24	ISSUED FOR 90% SUBMISSION
G.E.A. 09/12/24	ISSUED FOR GRCA APPROVAL
G.E.A. 07/30/24	ISSUED FOR 60% SUBMISSION
G.E.A. 06/11/24	ISSUED FOR 30% SUBMISSION
INT. DATE	REVISIONS
CITY OF WATERLOO	
INTEGRATED PLANNING AND PUBLIC WORKS	
SEAL (GEI)	
ALBERT STREET REMOVALS PLAN 0+980 TO 1+240	
CITY OF WATERLOO	
DATE: MAY 2024	DESIGNED BY: S.J.P.
SCALE: HORIZ = 1:250	DRAWN BY: E.A.
FIELD BK. PAGE	CHECKED BY: S.J.P.
DATE	DRAWING NO.
	15-1573

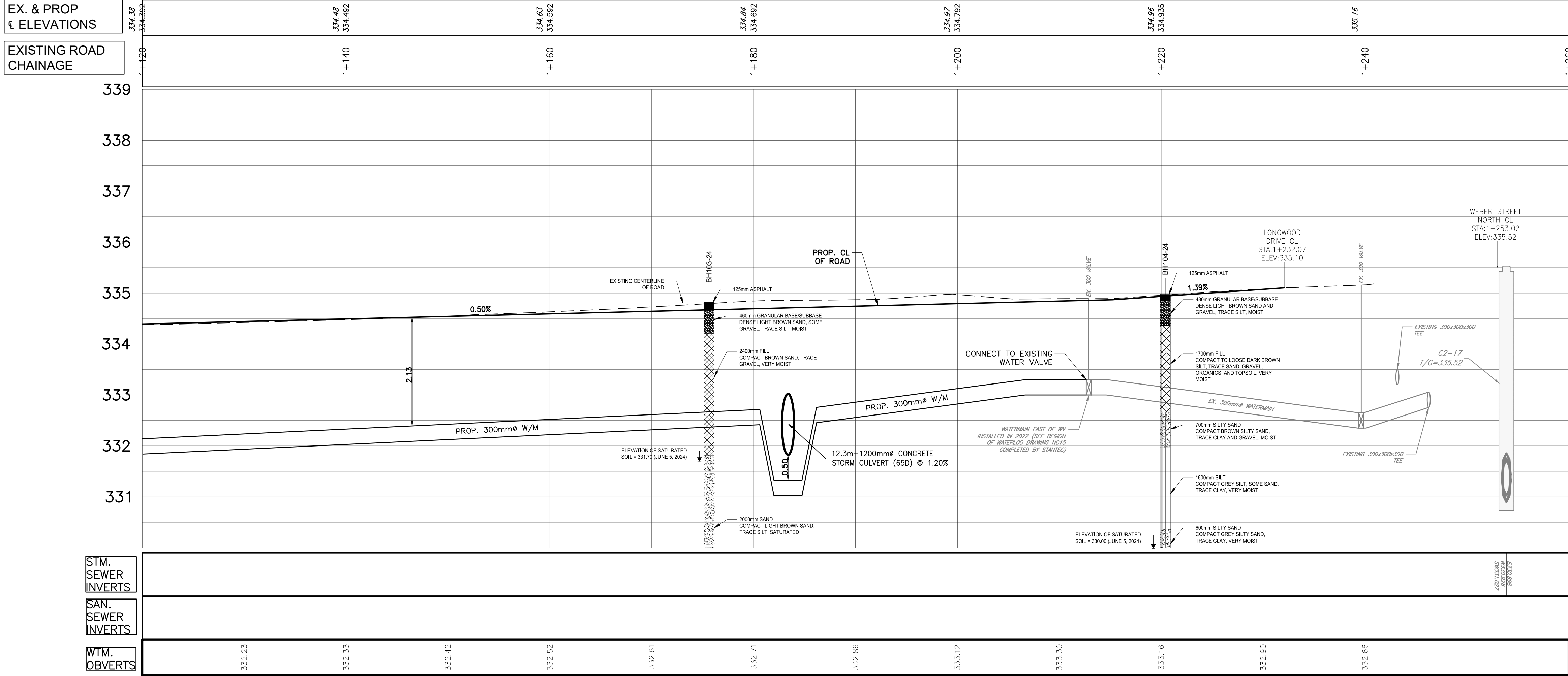
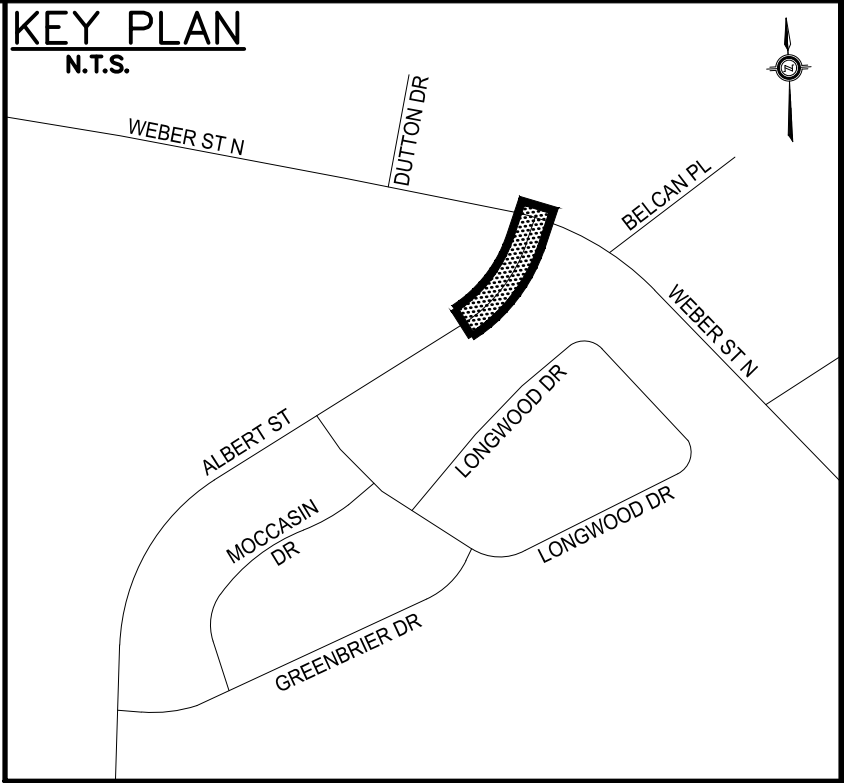
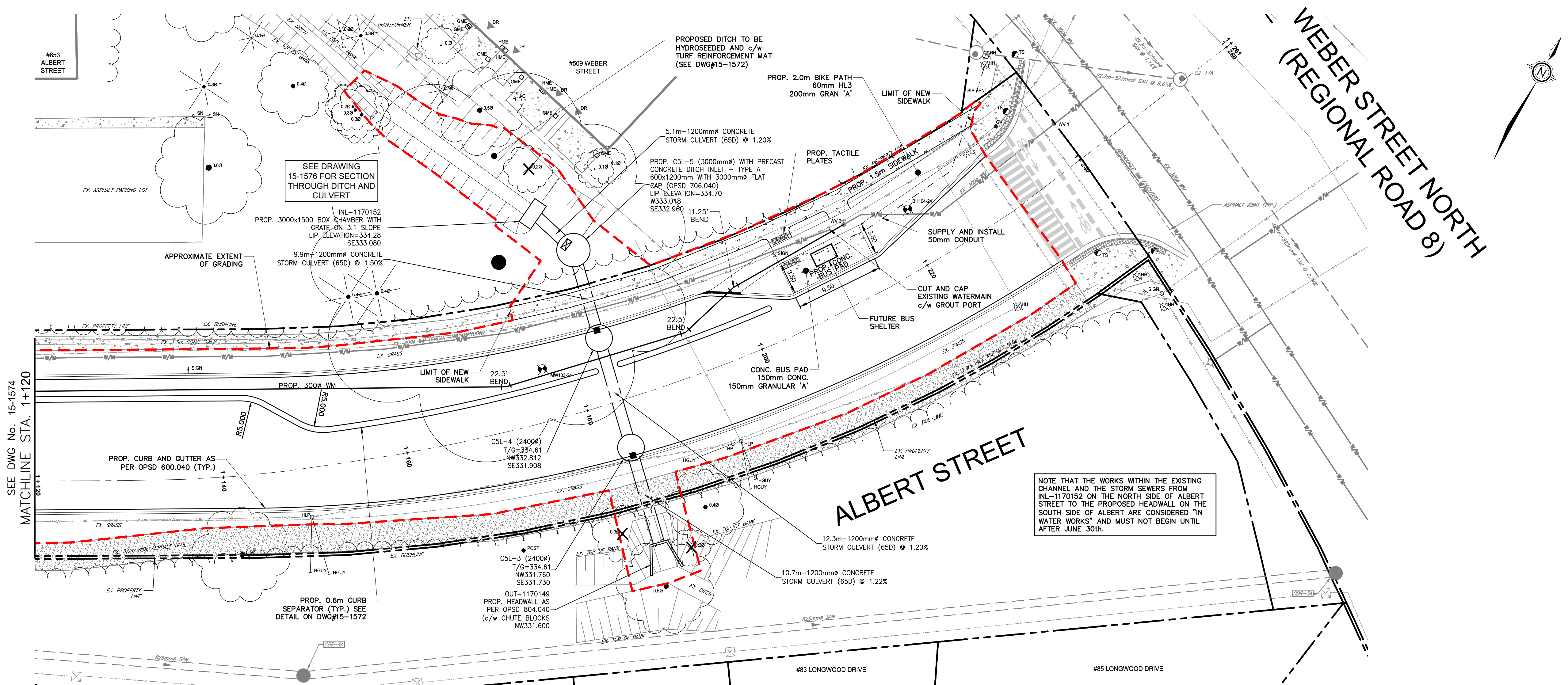


- | <u>LEGEND</u> | |
|---------------|--|
| | PROPOSED STORM DCBMH, |
| | DCB, CB, MH |
| | PROPOSED STORM SEWER |
| | PROPOSED WATERMAIN |
| | PROPOSED W/M VALVE |
| | PROPOSED FIRE HYDRANT |
| | PROPOSED CURB STOP |
| | PROPOSED W/M TEE |
| | EXISTING STORM MH, CBMH,
DCBHM, DCB, CB |
| | EXISTING SANITARY MH |
| | HYDRO POLE/LIGHT STANDARD |
| | PROPERTY LINE |
| | EXISTING SANITARY SEWER |
| | EXISTING STORM SEWER |
| | EXISTING WATERMAIN |
| | EXISTING CURB STOP |
| | EXISTING FIRE HYDRANT |
| | EXISTING WATER VALVE |
| | BOREHOLE |
| | EXISTING GAS SERVICE |
| | EXISTING BELL PHONE/CABLE |
| | EXTENT OF GRADING |

- ## GENERAL NOTES:
1. THE POSITION OF POLE LINE, CONDUITS, WATER MAINS, SEWERS AND OTHER UTILITIES, FEATURES AND STRUCTURES ARE NOT NECESSARILY SHOWN ON THE CONTRACT DRAWINGS AND WHERE SHOWN, THE ACCURACY OF THE POSITIONS IS NOT GUARANTEED. BEFORE STARTING CONSTRUCTION, THE CONTRACTOR SHALL INFORM HIMSELF OF THE EXACT LOCATION OF SUCH UTILITIES AND STRUCTURES.
 2. ALL DIMENSIONS SHALL BE CHECKED BY THE CONTRACTOR AND INCONSISTENCIES REPORTED TO THE PROJECT ENGINEER.
 3. ALL UNITS ARE IN METRES UNLESS OTHERWISE NOTED.
 4. ALL WORK REPORTED IN ACCORDANCE WITH THE LATEST RELEVANT SECTION OF THE O.P.S.D.'S, ONTARIO BUILDING CODE AND REQUIREMENTS OF THE CITY OF WATERLOO AND REGION OF WATERLOO
 5. ALL DISTURBED AREAS RESTORED TO ORIGINAL CONDITIONS OR BETTER IN ACCORDANCE WITH CITY OF WATERLOO AND REGION OF WATERLOO DRAWINGS/SPECIFICATIONS.
 6. GEOTECHNICAL INVESTIGATION COMPLETED BY MTE CONSULTANT DATED JULY 8, 2024.

 GEI Consultants GEI CONSULTANTS, INC. 330 TRILLIUM DRIVE UNIT D KITCHENER, ONTARIO N2E 3J2 519.748.1440			
CONTRACT RFT25-01			
BENCHMARKS:			
BM. WO-14 ELEV=338.596m NAIL IN HYDRO POLE (TRANSFORMER), 40m WEST OF WAGNERS CORNER, SOUTH SIDE OF REGIONAL ROAD 15. CC100 ELEV=334.805m CUT CROSS SET IN NORTH EAST CORNER OF RIGHT OF WAY OF BOX CULVERT SOUTH WEST CORNER OF LONGWOOD DRIVE AND ALBERT STREET INTERSECTION.			
S.J.P.	01/10/25	TENDER — ADDENDUM 1	
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INT.	DATE	REVISIONS	
CITY OF WATERLOO			
INTEGRATED PLANNING AND PUBLIC WORKS			
SEAL (GEI)			
ALBERT STREET PLAN AND PROFILE 0+980 TO 1+120			
CITY OF WATERLOO			
DATE:	MAY 2024	DESIGNED BY:	S.J.P.
SCALE:	HORIZ = 1:250 VERT = 1:50	DRAWN BY:	E.A.
FIELD BK.	PAGE	CHECKED BY:	S.J.P.
DATE	DRAWING NO.	15-1574	

4240509



- LEGEND**
- PROPOSED STORM DCBMH, DCB, CB, MH
 - PROPOSED STORM SEWER
 - PROPOSED WATERMAIN
 - PROPOSED W/M VALVE
 - PROPOSED FIRE HYDRANT
 - PROPOSED CURB STOP
 - PROPOSED W/M TEE
 - EXISTING STORM MH, CBMH, DCBMH, DCB, CB
 - EXISTING SANITARY MH
 - HYDRO POLE/LIGHT STANDARD
 - PROPERTY LINE
 - EXISTING SANITARY SEWER
 - EXISTING STORM SEWER
 - EXISTING WATERMAIN
 - EXISTING CURB STOP
 - EXISTING FIRE HYDRANT
 - EXISTING WATER VALVE
 - EXISTING GAS SERVICE
 - EXISTING BELL PHONE/CABLE
 - EXTENT OF GRADING
 - TREE REMOVAL

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GEI Consultants
GEI CONSULTANTS, INC.
330 TRILLIUM DRIVE
UNIT D
KITCHENER, ONTARIO N2E 3J2
519.748.1440

CONTRACT RFT25-01

BENCHMARKS:

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INT.	DATE	REVISIONS

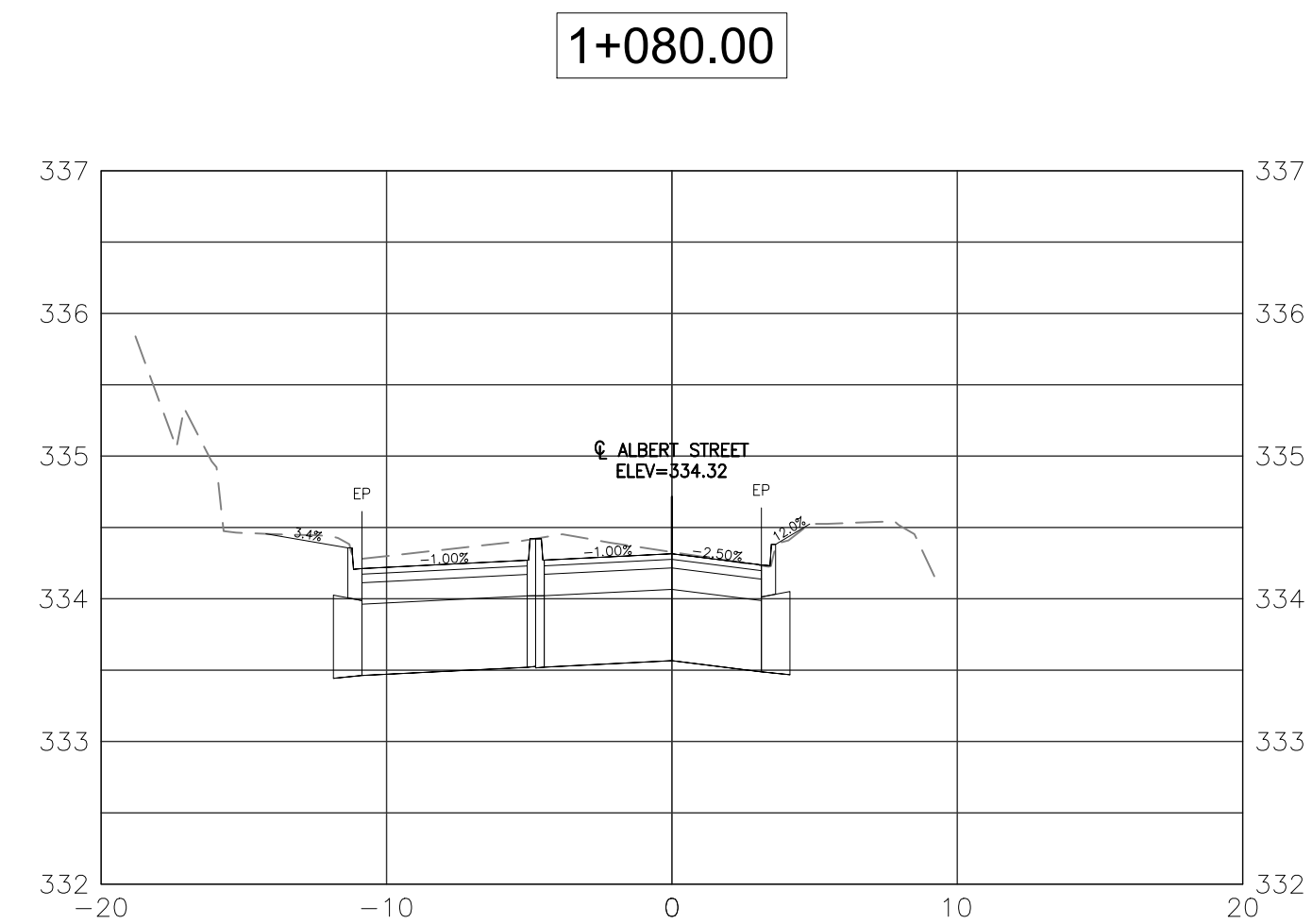
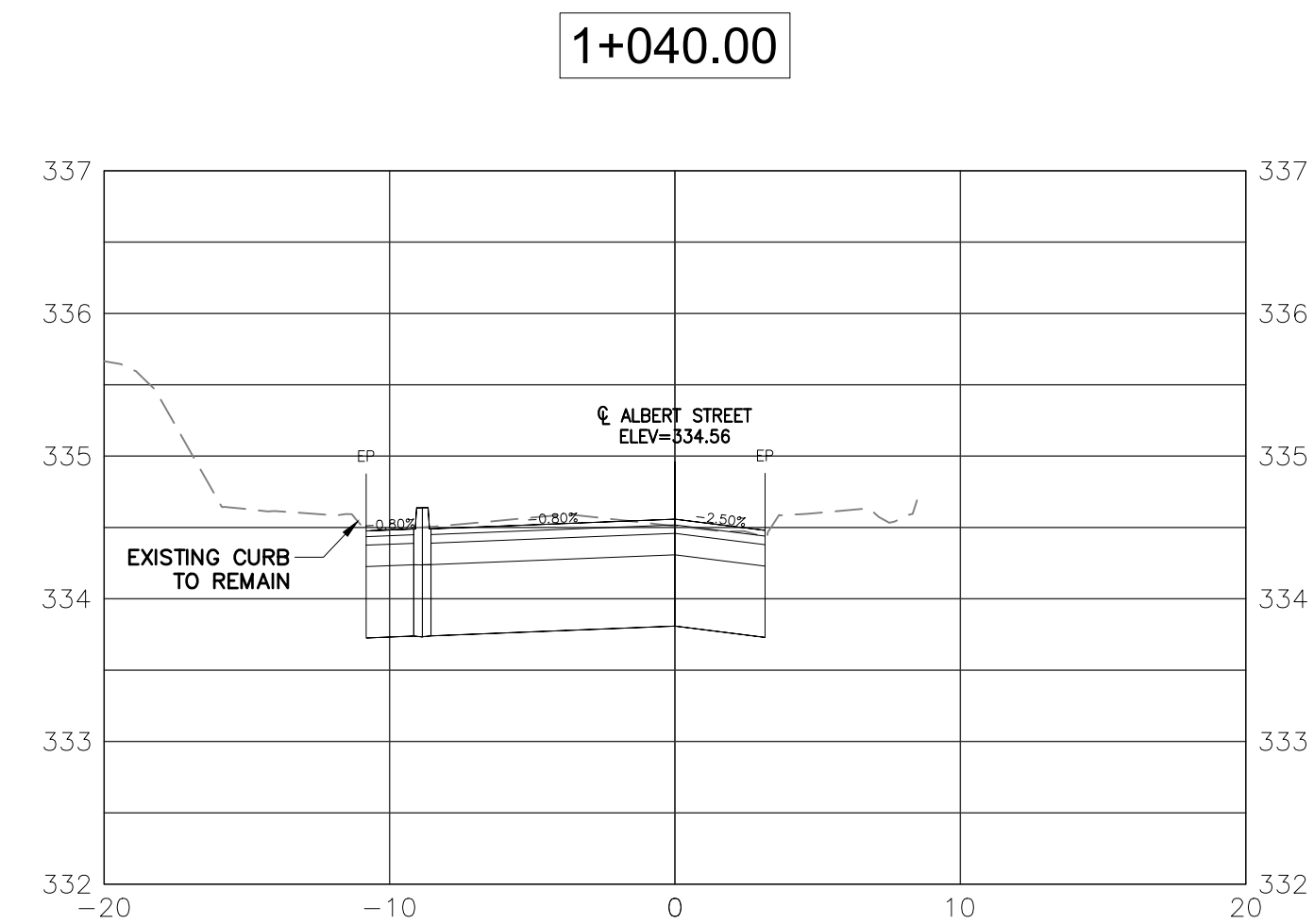
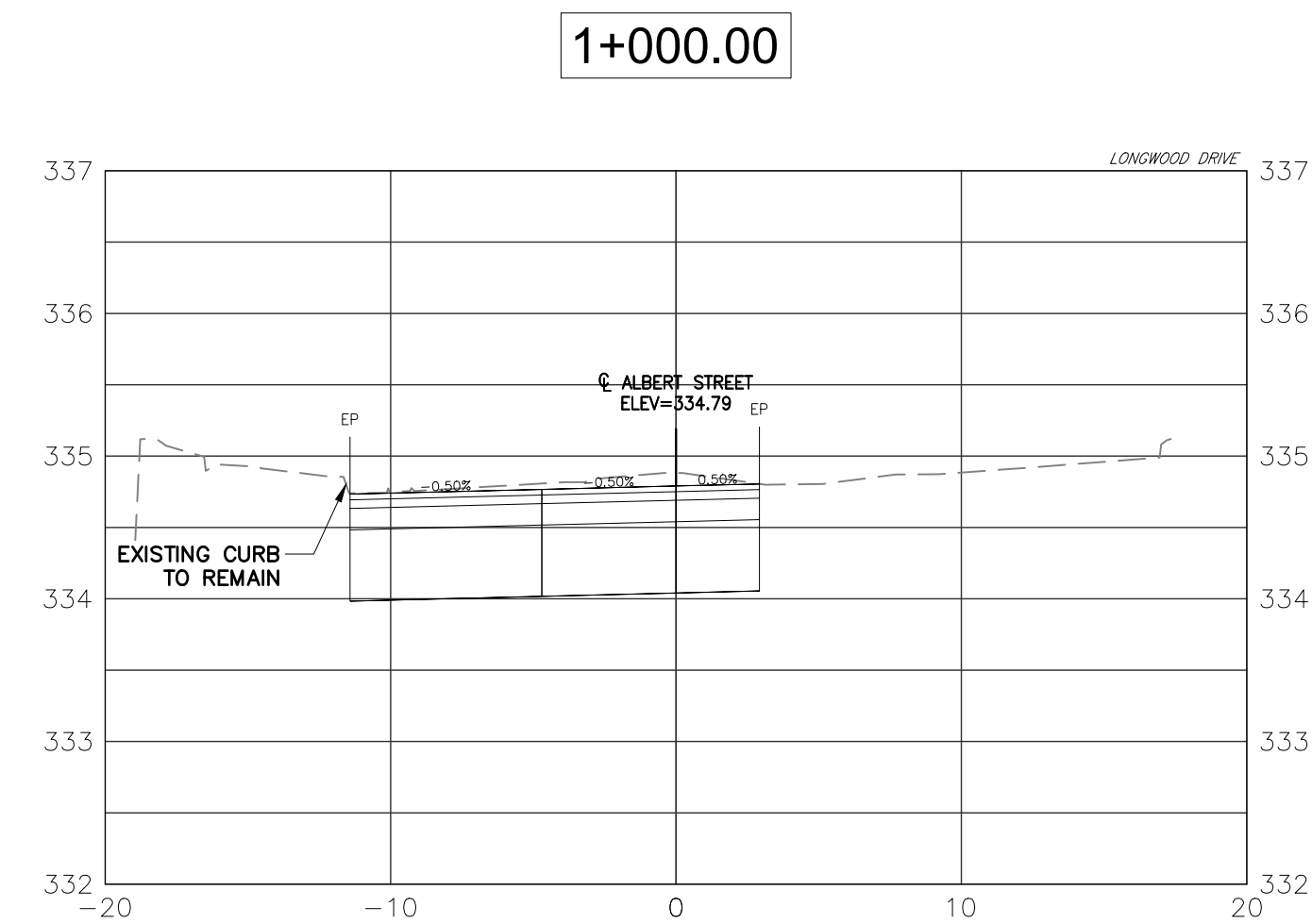
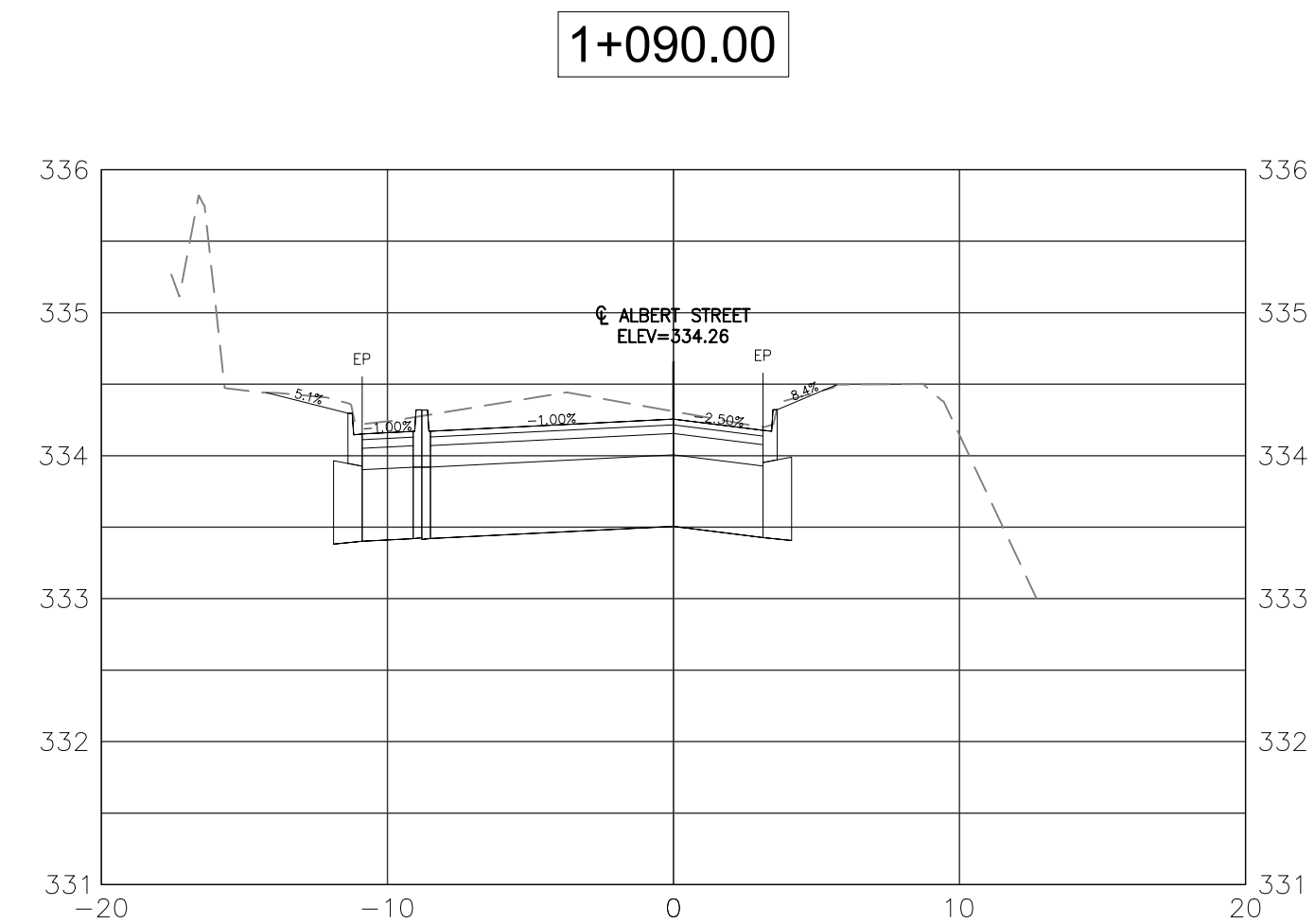
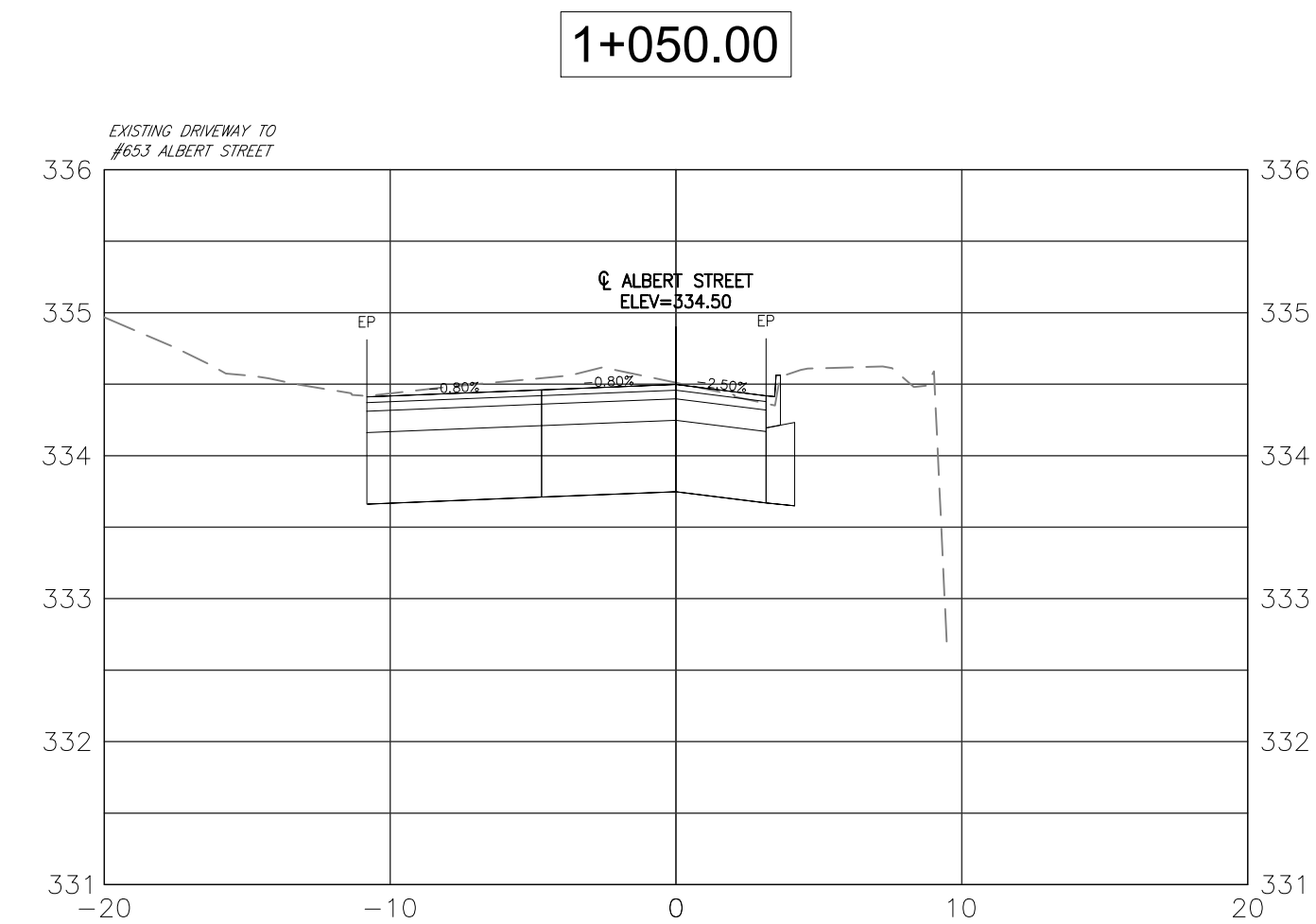
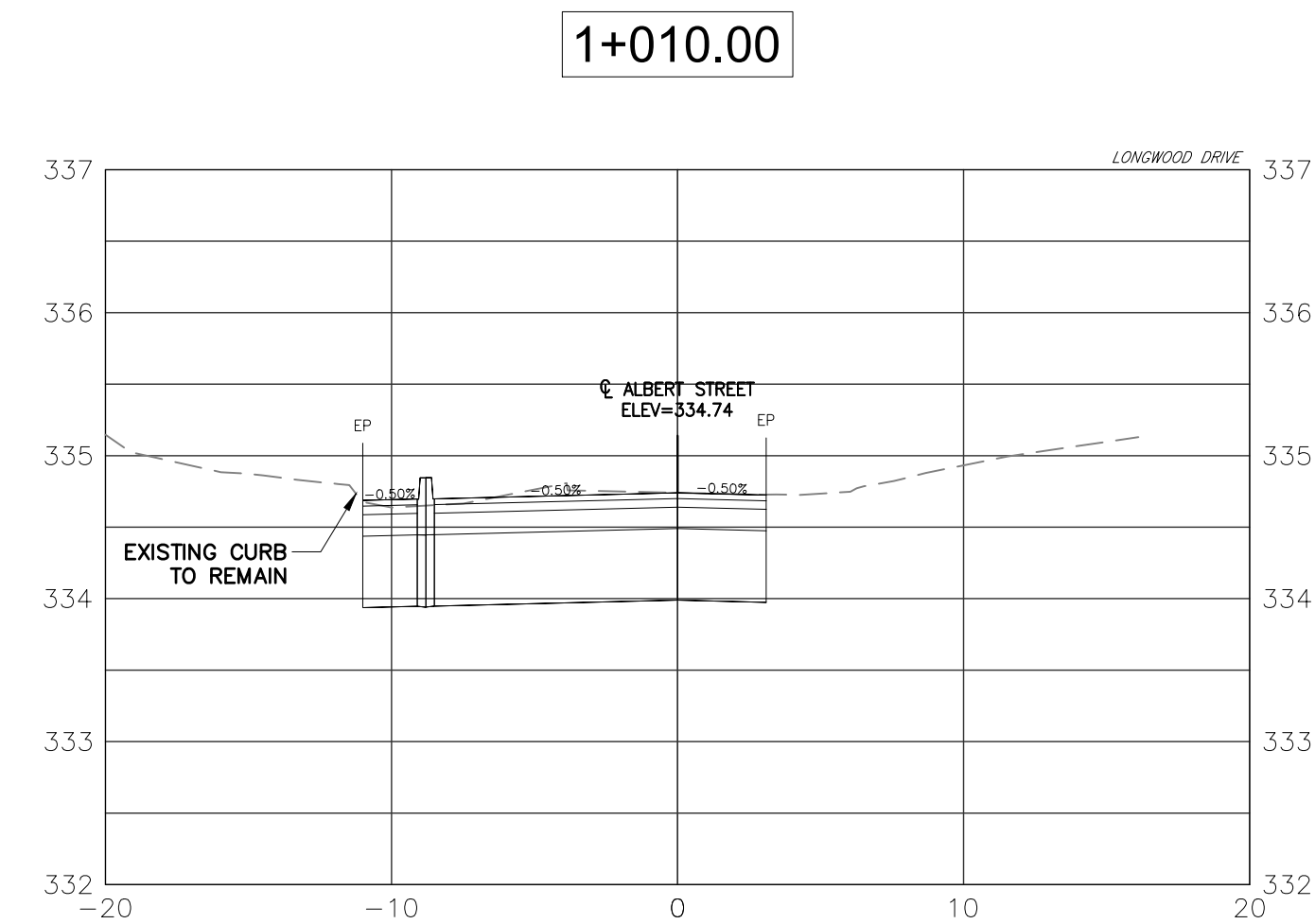
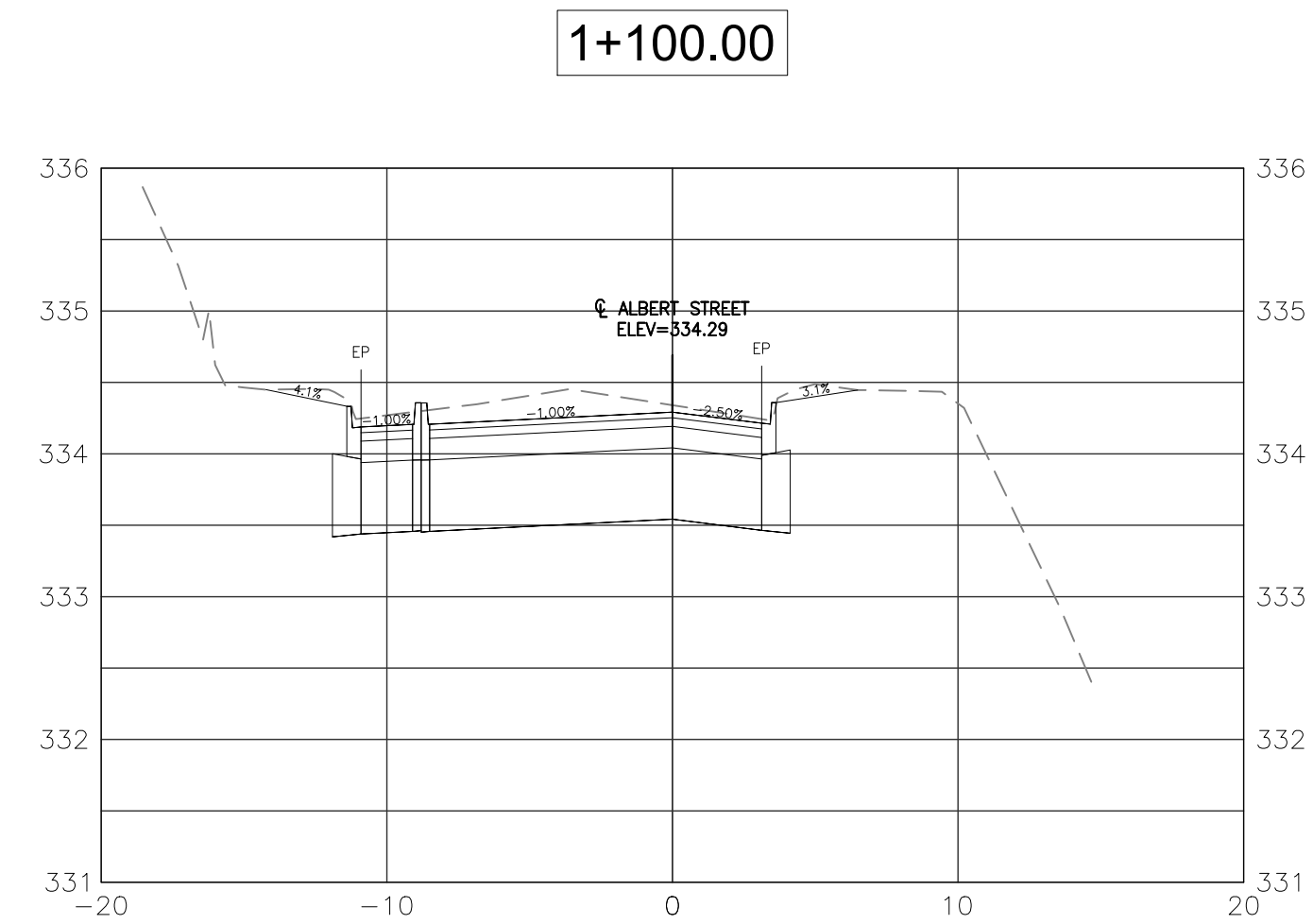
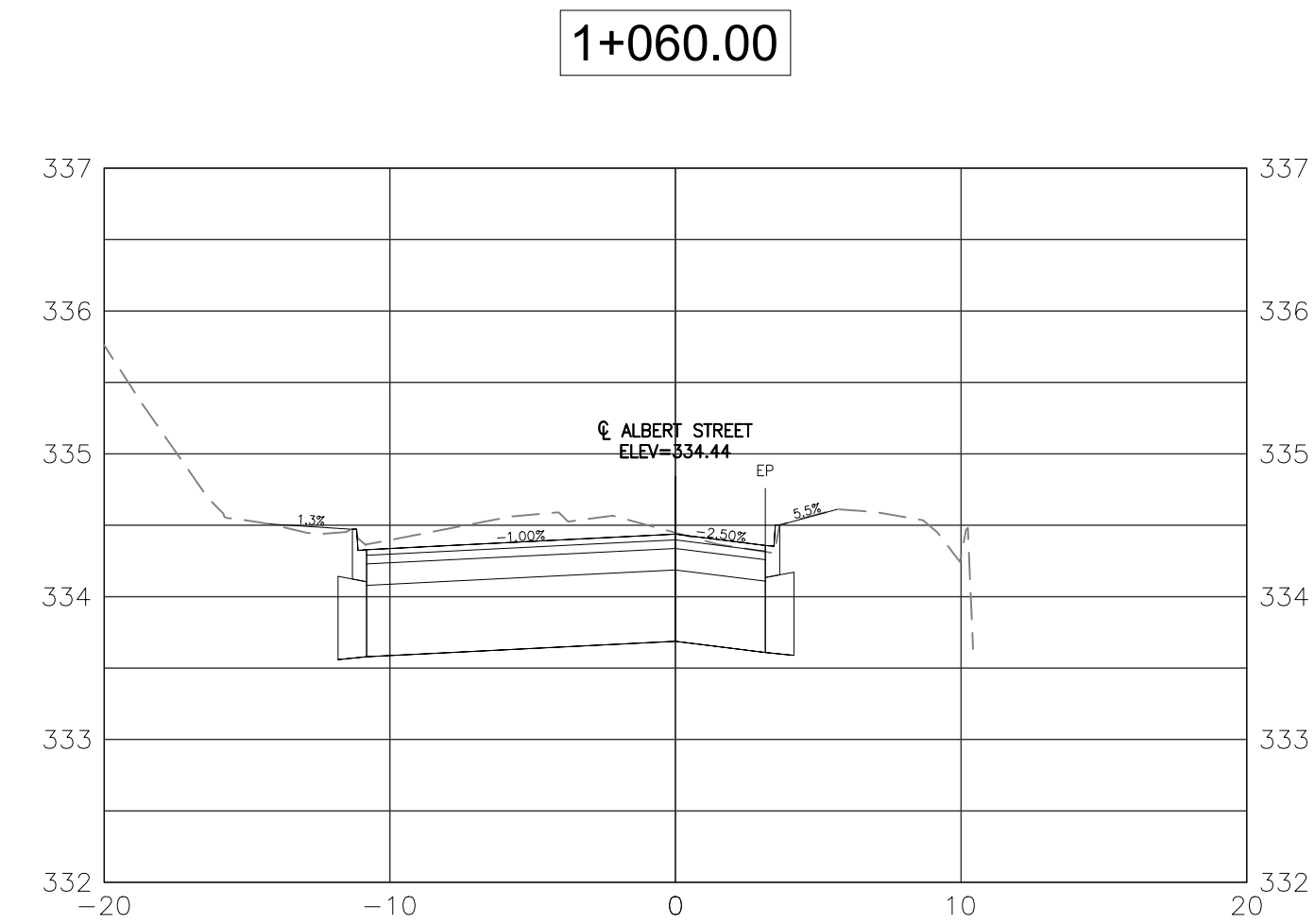
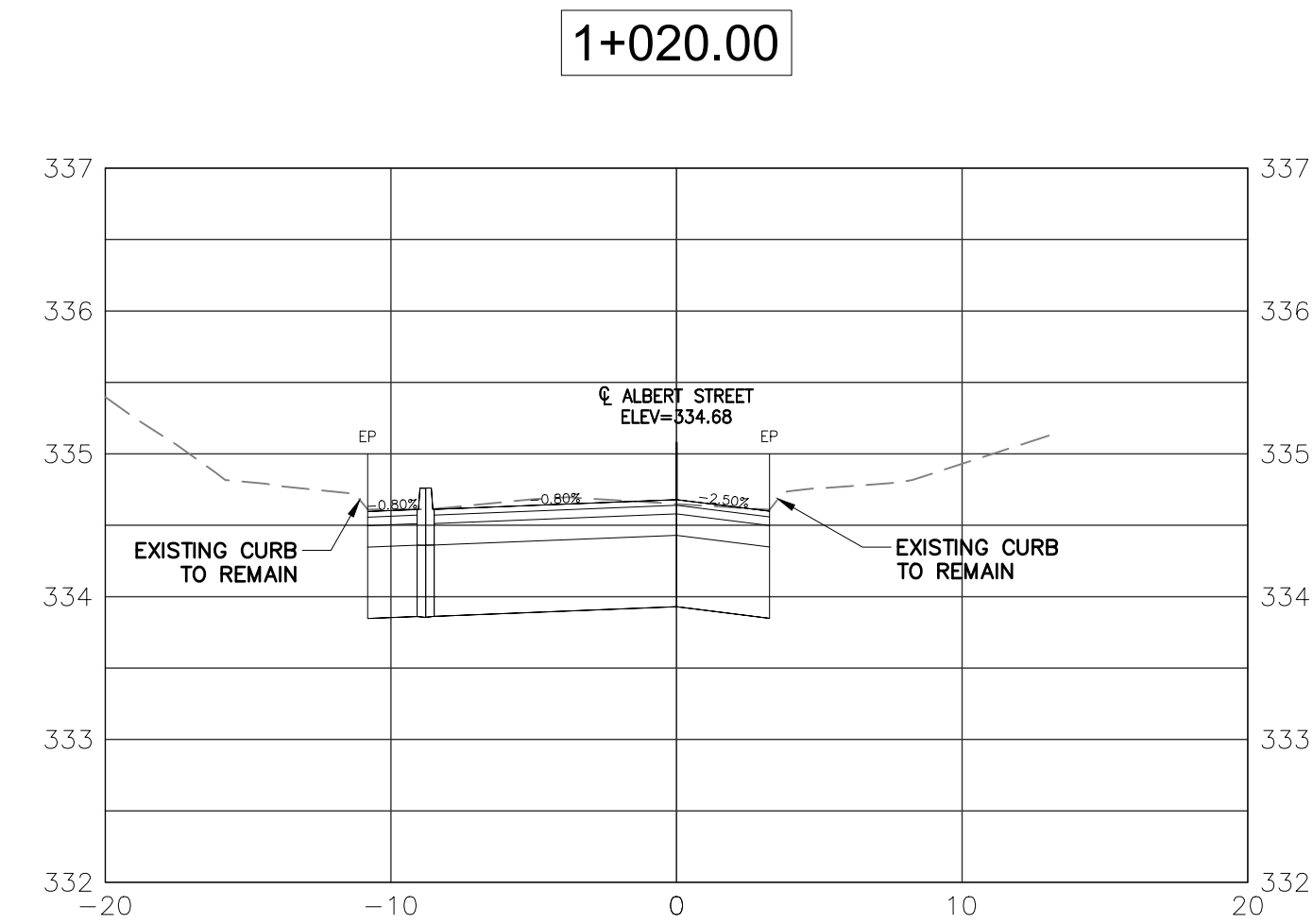
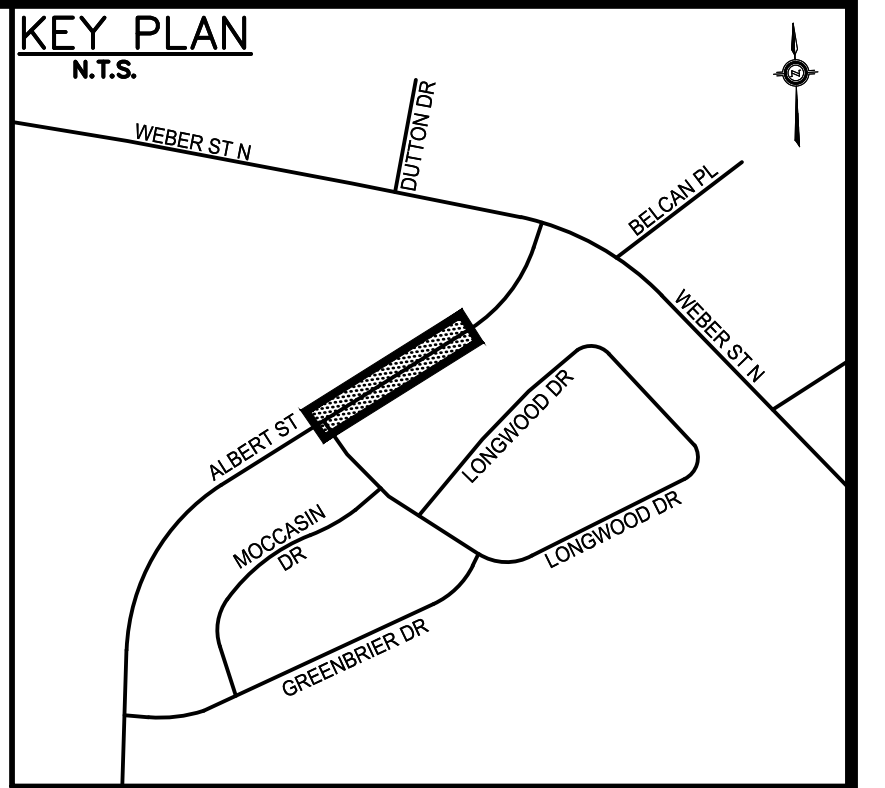
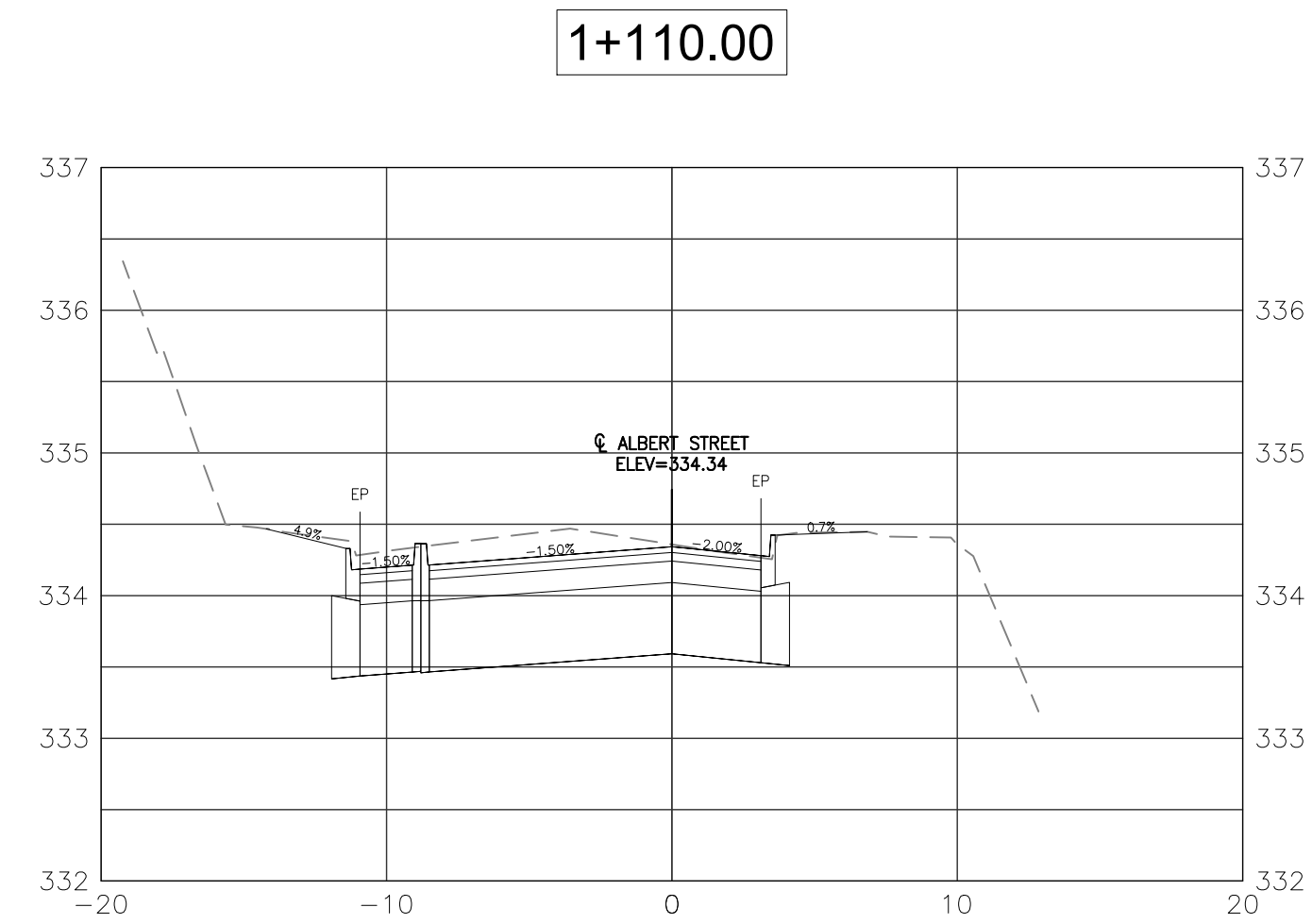
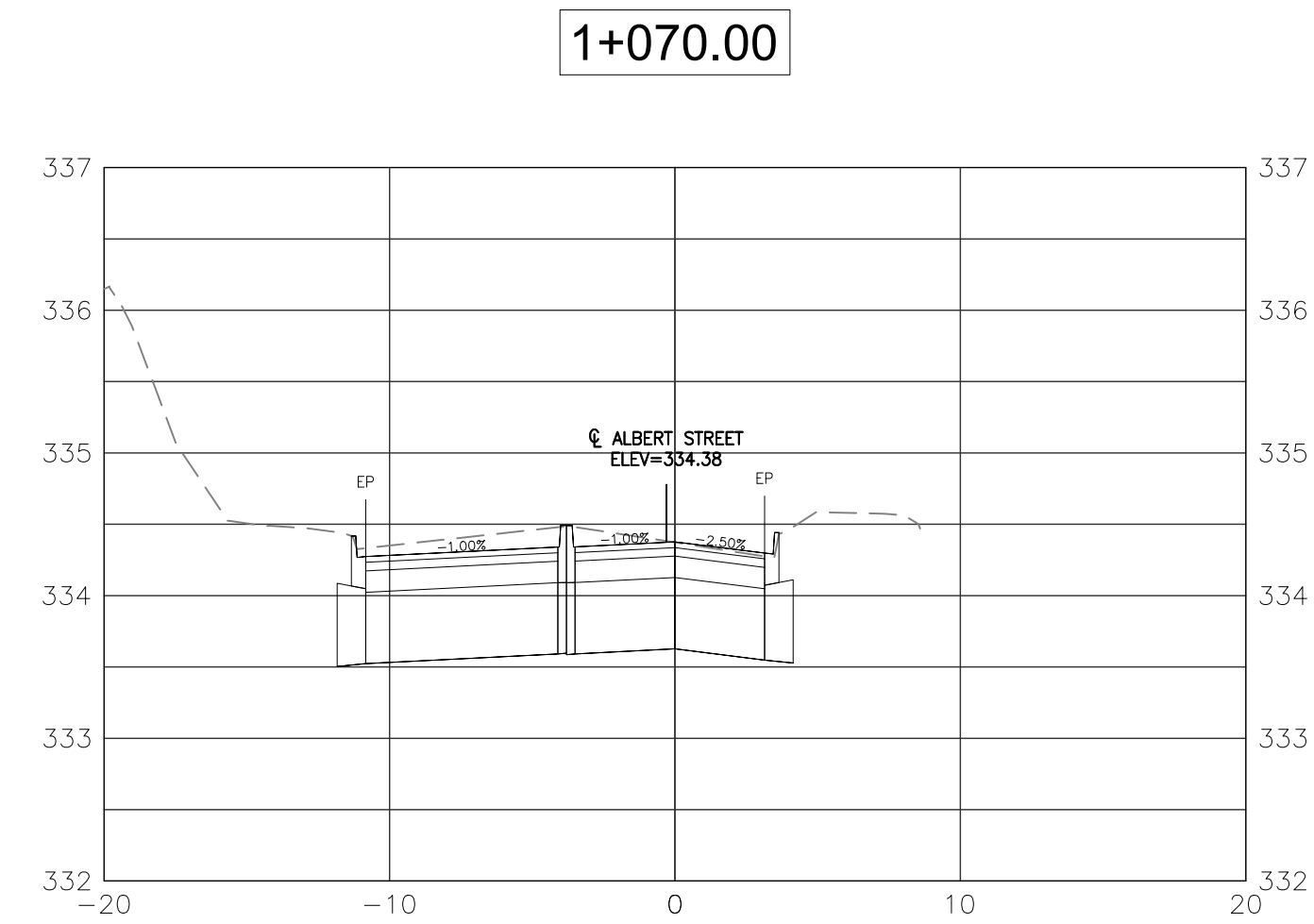
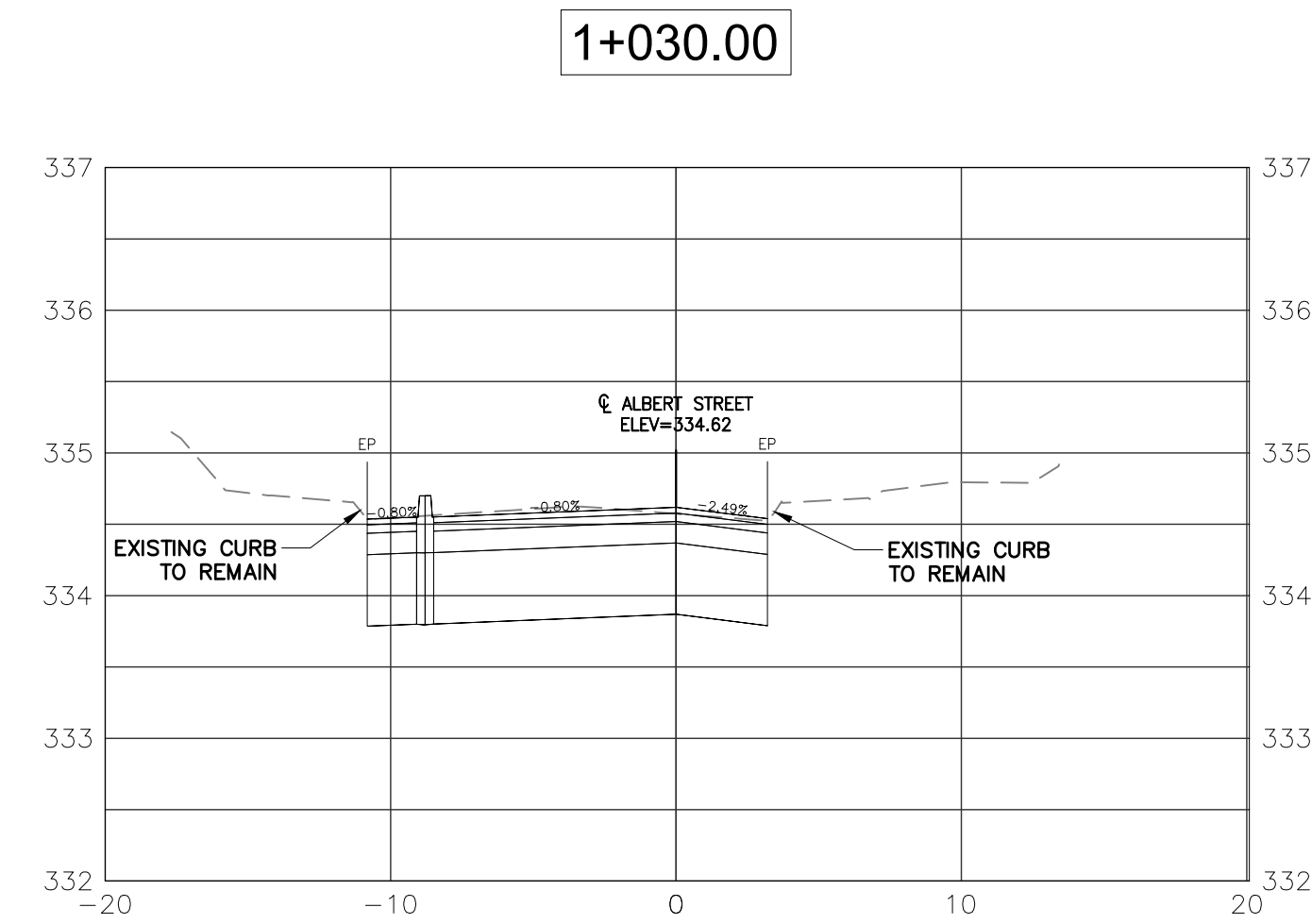
CITY OF WATERLOO
INTEGRATED PLANNING AND PUBLIC WORKS

SEAL (GEI)

**ALBERT STREET
PLAN AND PROFILE
1+120 TO 1+240**

CITY OF WATERLOO

DATE:	MAY 2024	DESIGNED BY:	S.J.P.
SCALE:	HORIZ = 1:250 VERT = 1:50	DRAWN BY:	E.A.
FIELD BK.	PAGE	CHECKED BY:	S.J.P.
		DRAWING NO.	15-1575



GEI Consultants
GEI CONSULTANTS, INC.
330 TRILLIUM DRIVE
UNIT D
KITCHENER, ONTARIO N2E 3J2
519.748.1440

CONTRACT RFT25-01

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CITY OF WATERLOO
INTEGRATED PLANNING AND PUBLIC WORKS

SEAL (GEI)

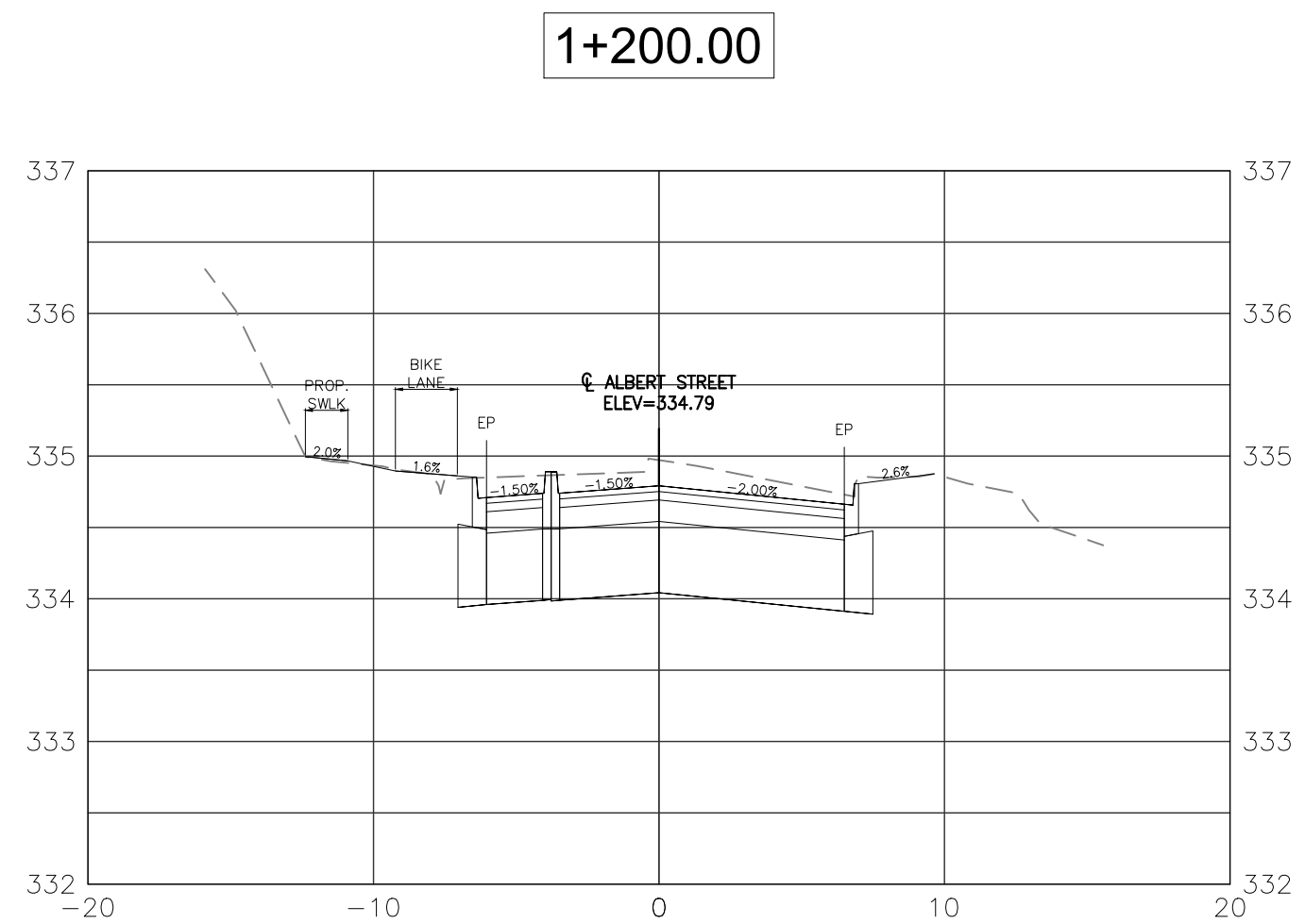
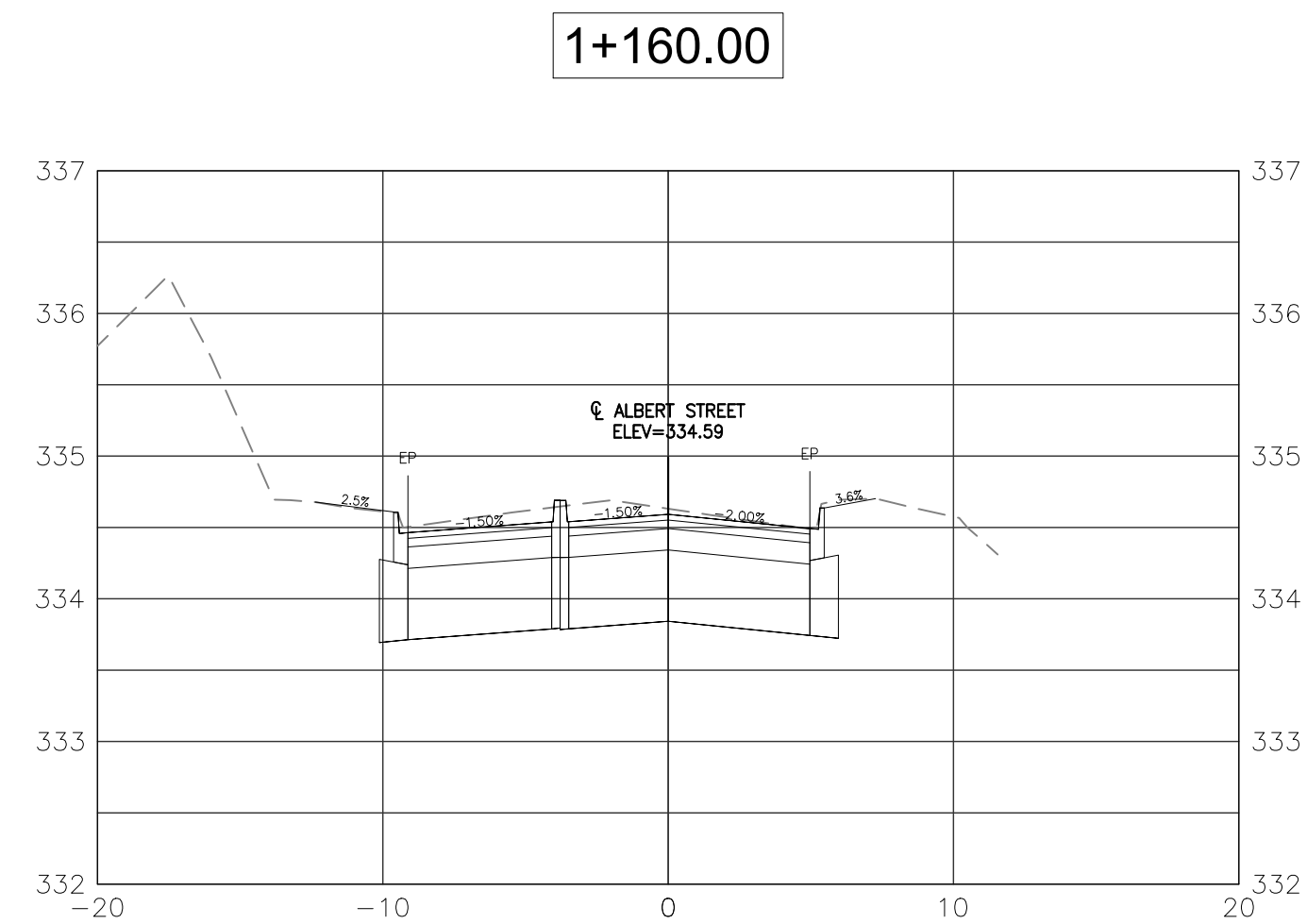
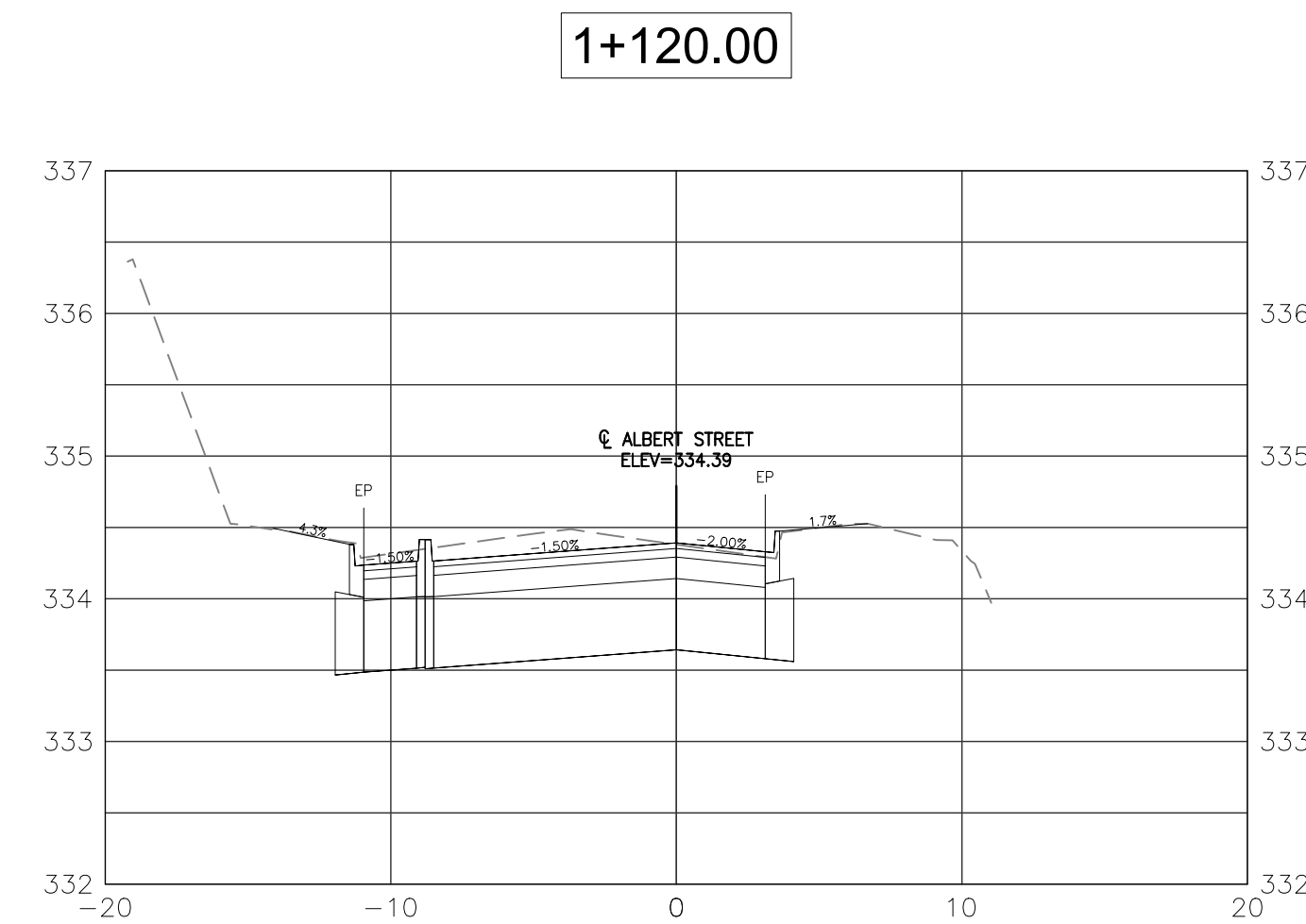
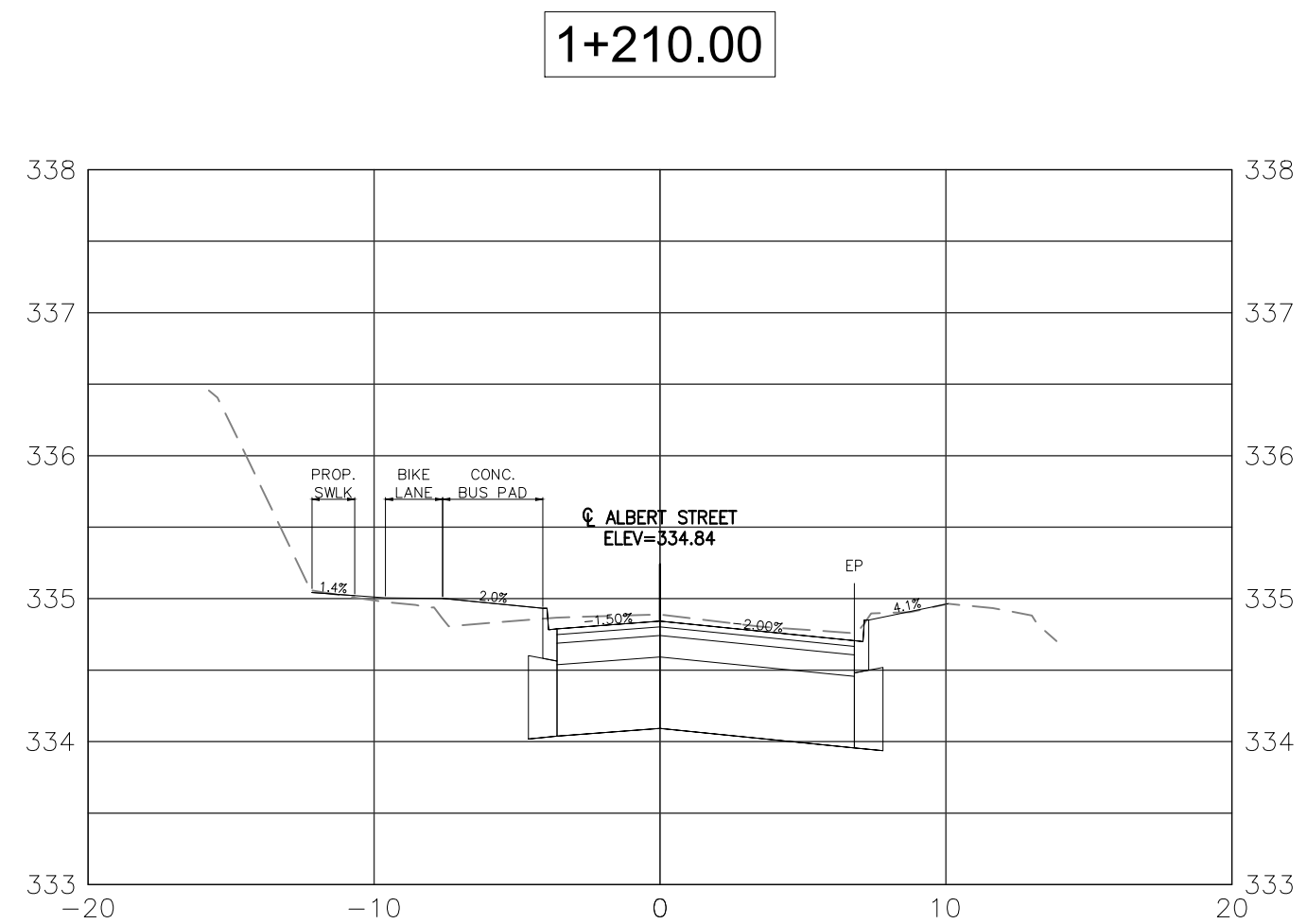
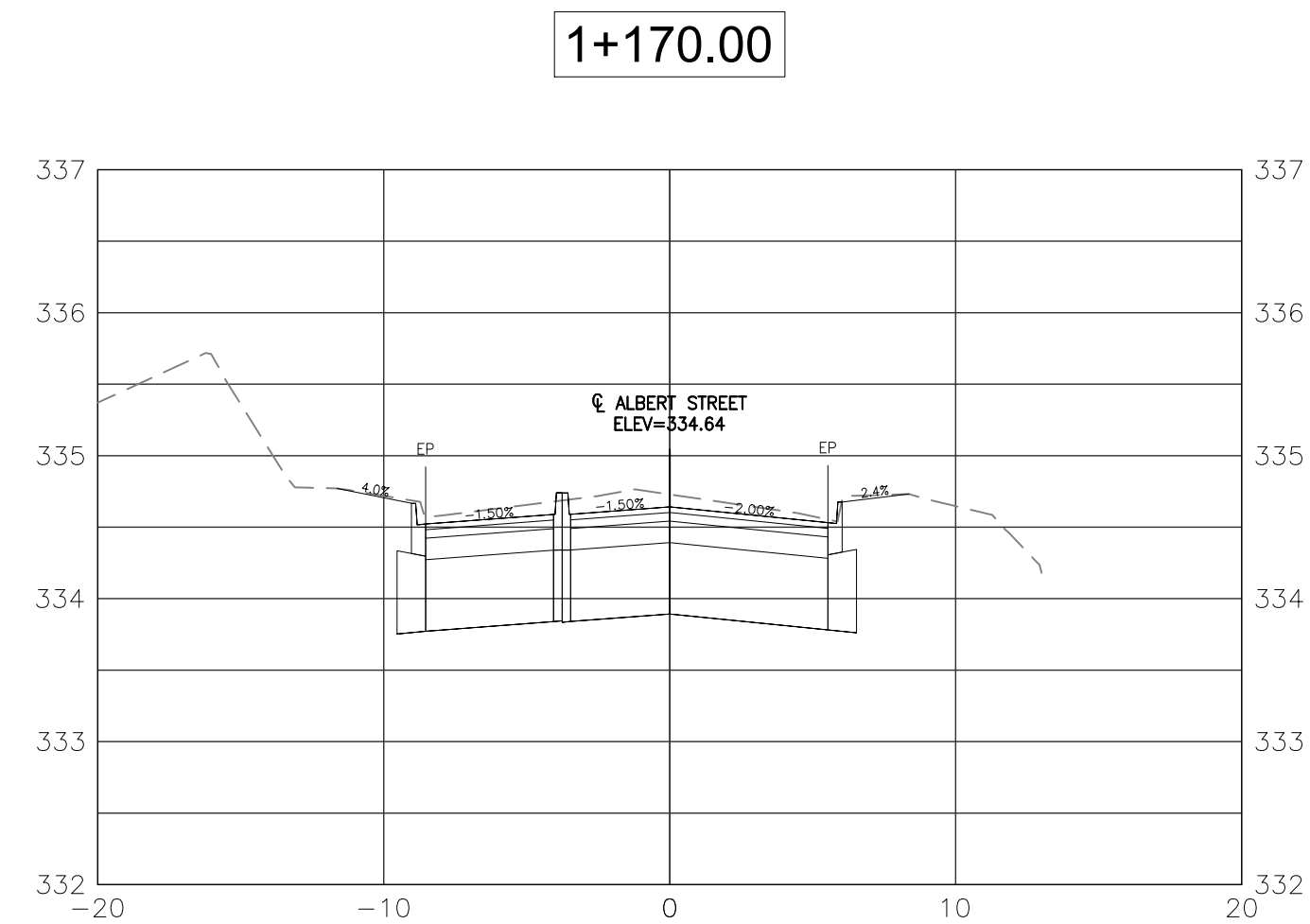
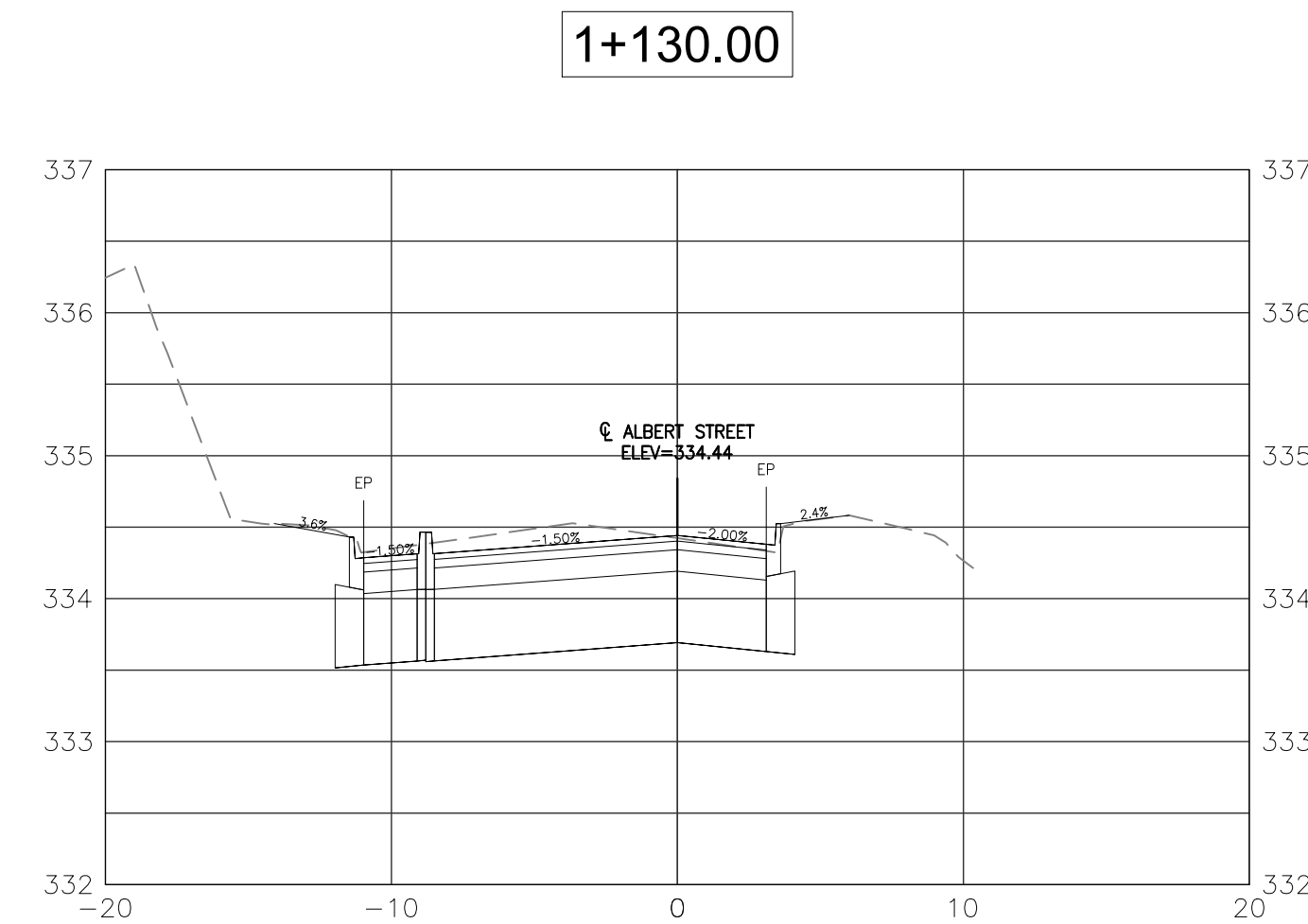
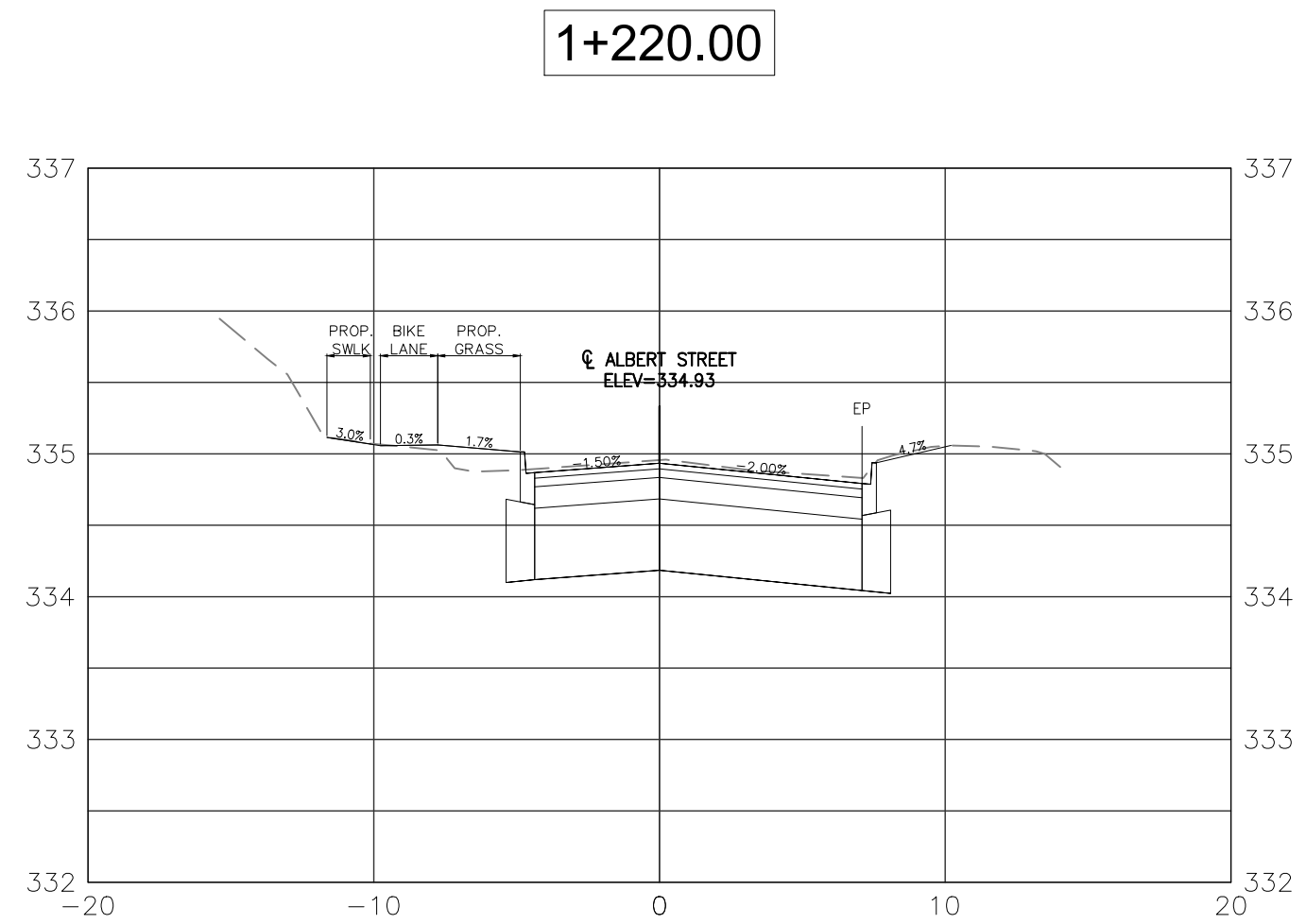
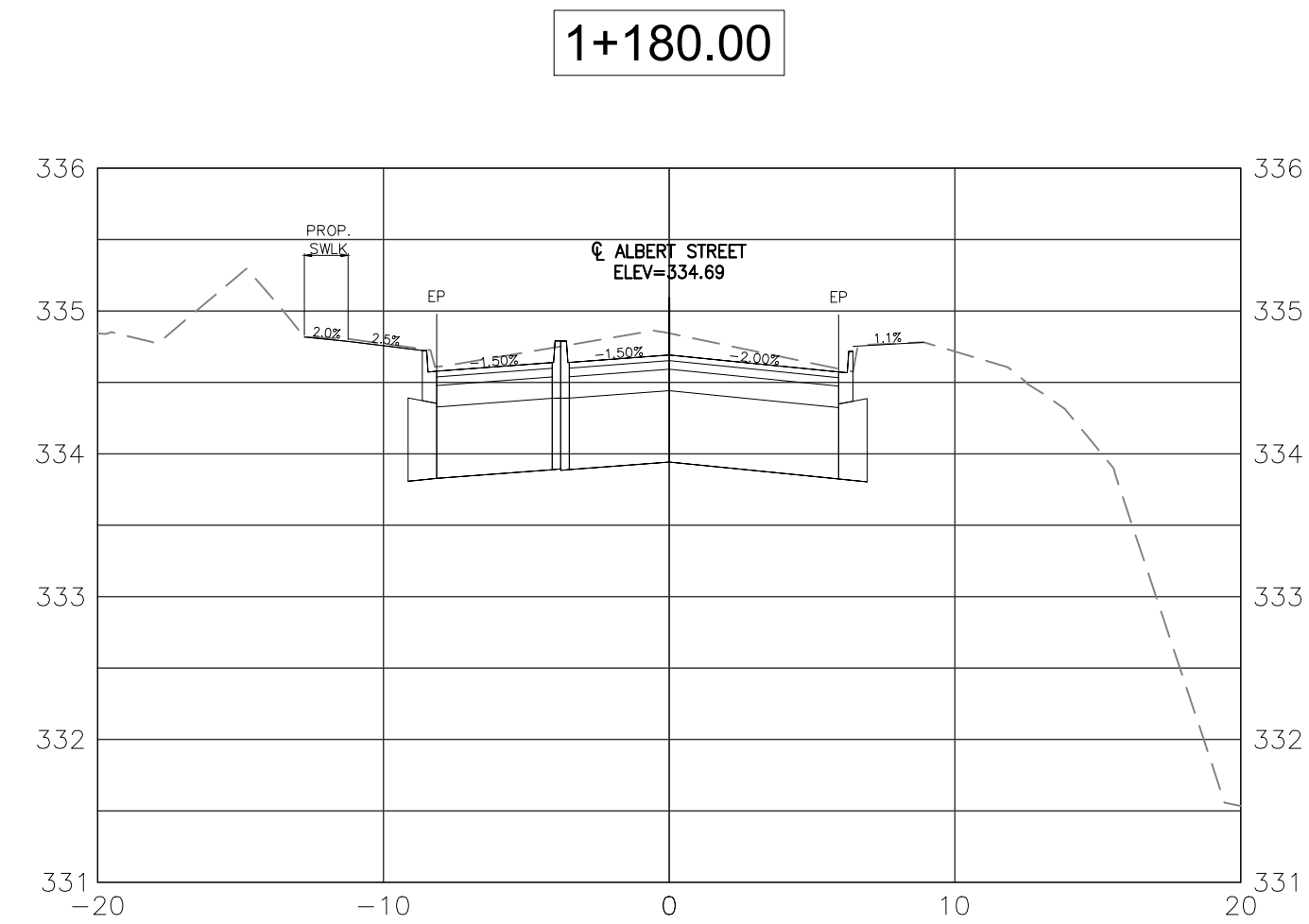
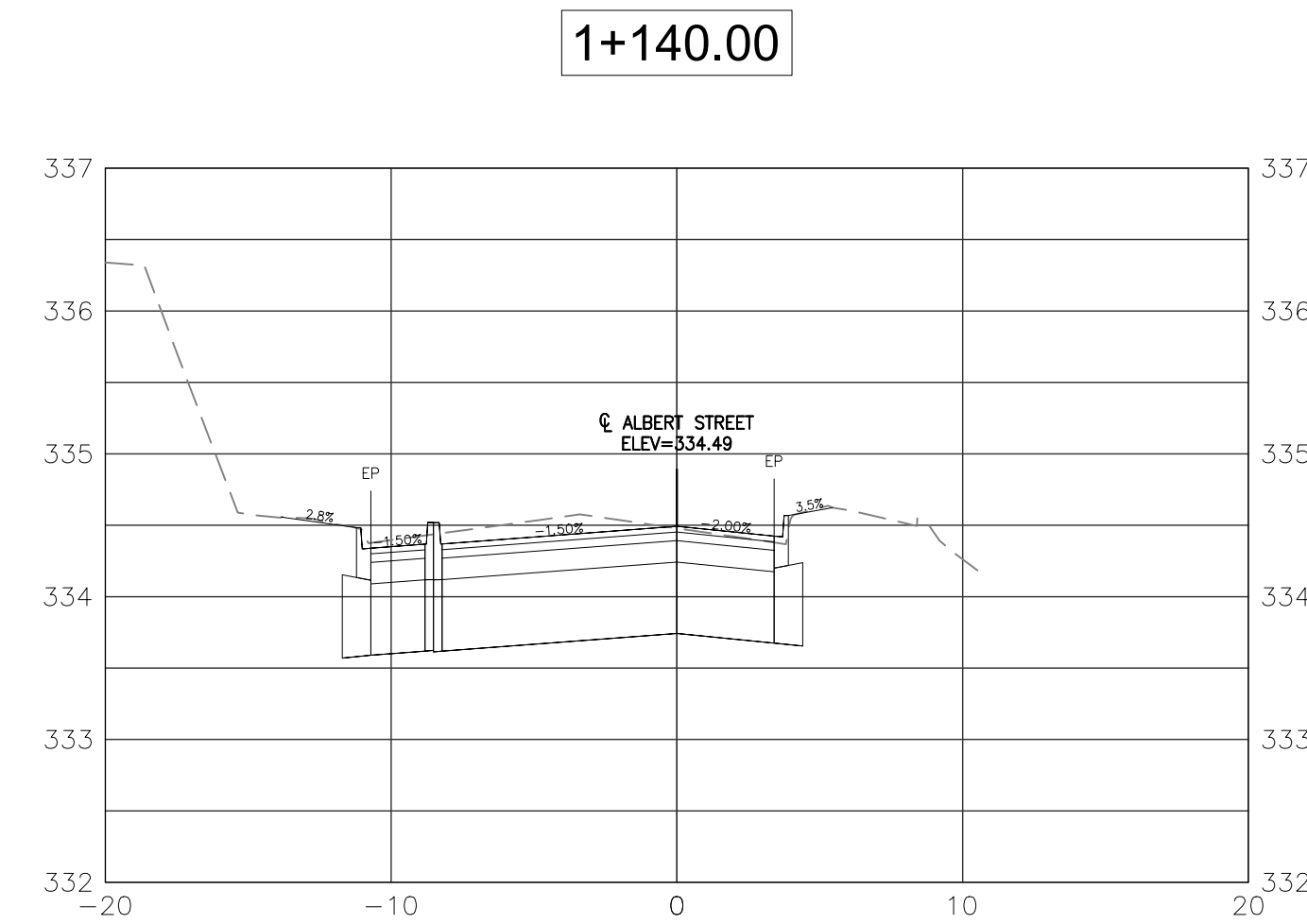
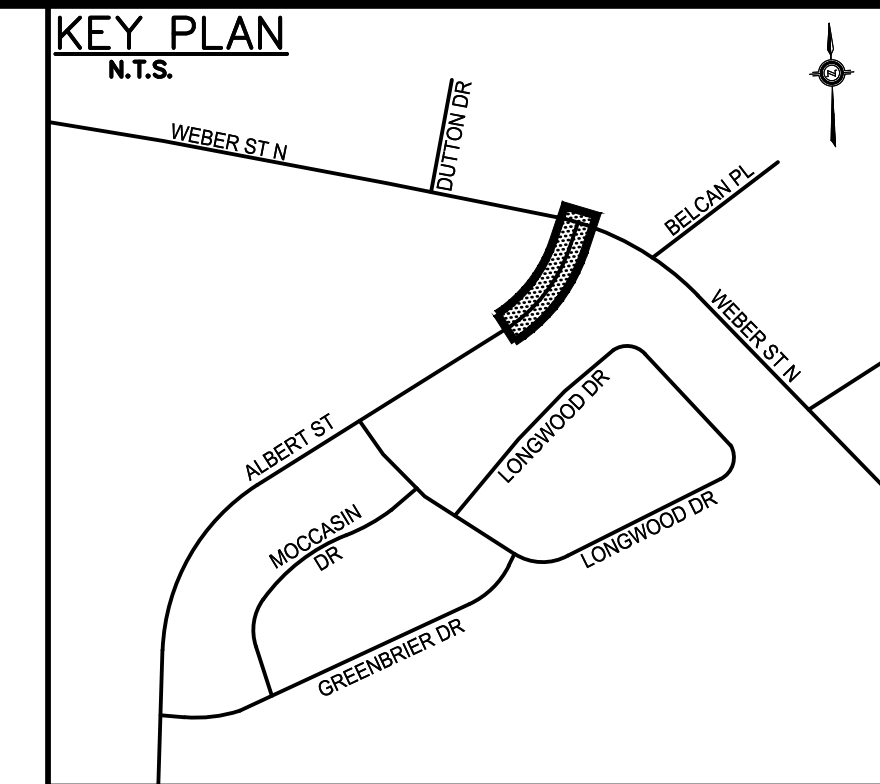
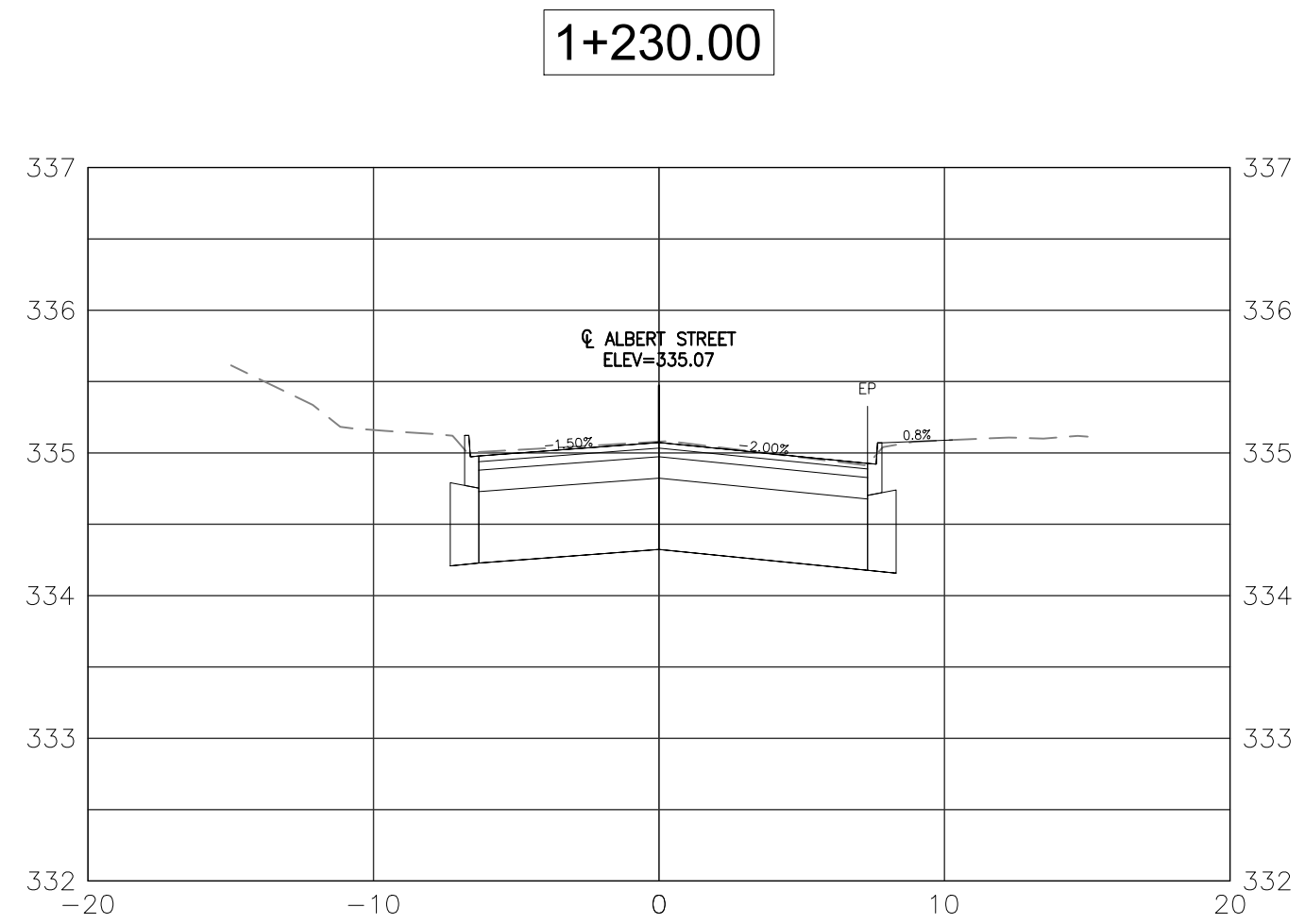
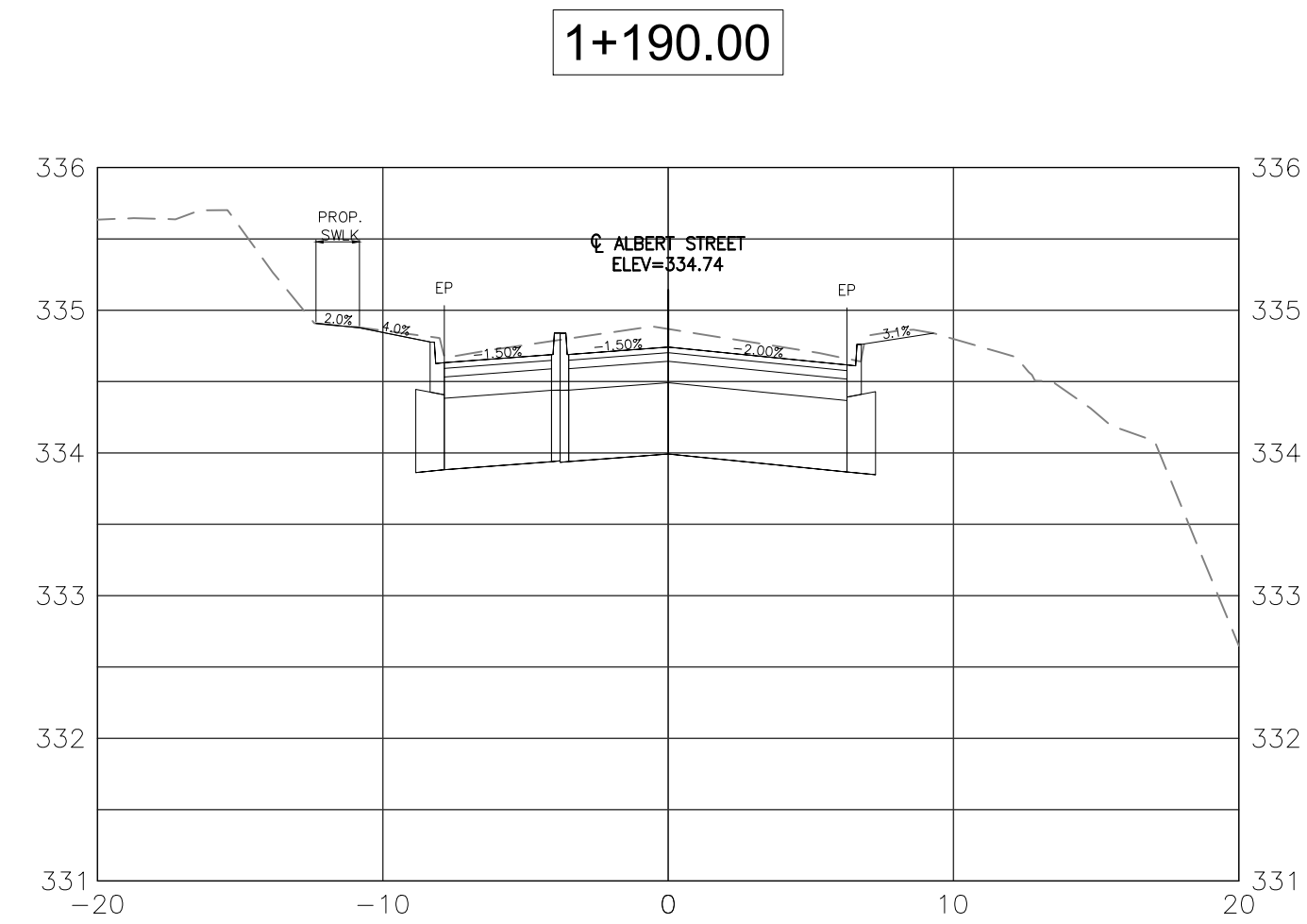
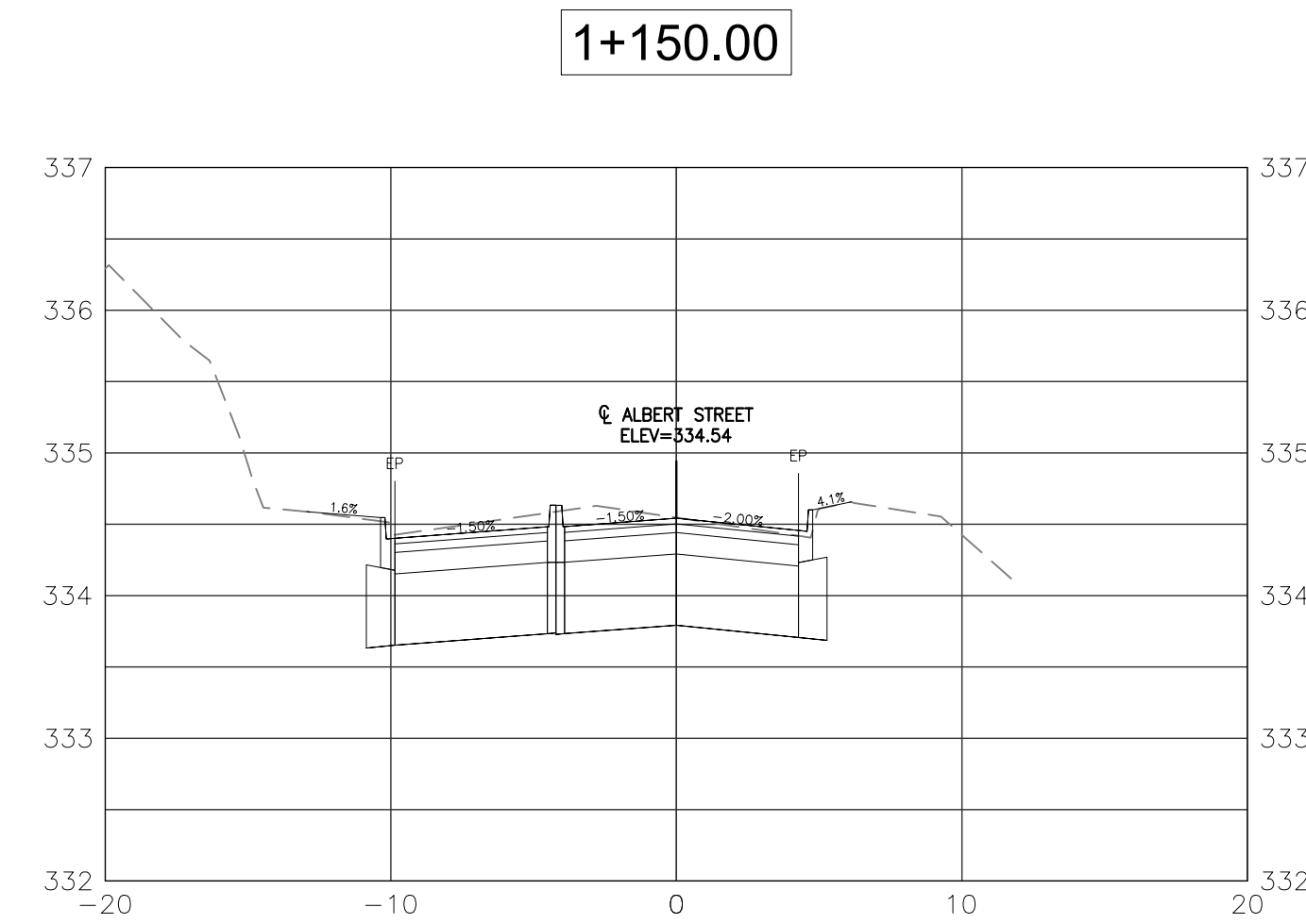
**ALBERT STREET
SECTIONS
1+000 TO 1+110**

CITY OF WATERLOO

DATE:	MAY 2024	DESIGNED BY:	S.J.P.
SCALE:	HORIZ = 1:250 VERT = 1:50	DRAWN BY:	E.A.
FIELD BK.	PAGE	CHECKED BY:	S.J.P.
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15-1577

424058



CONTRACT RFT25-01

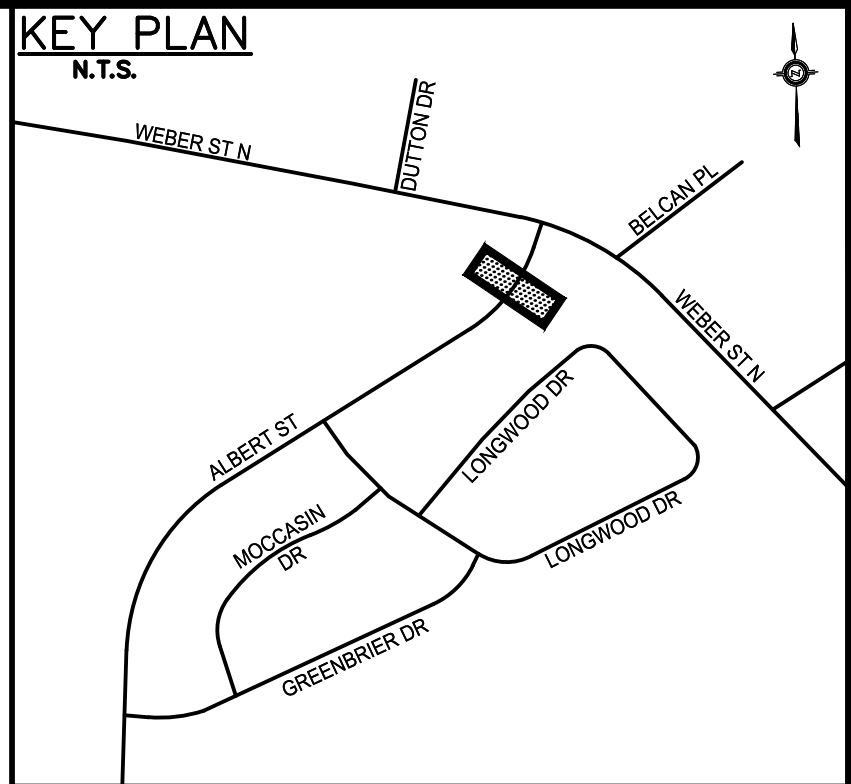
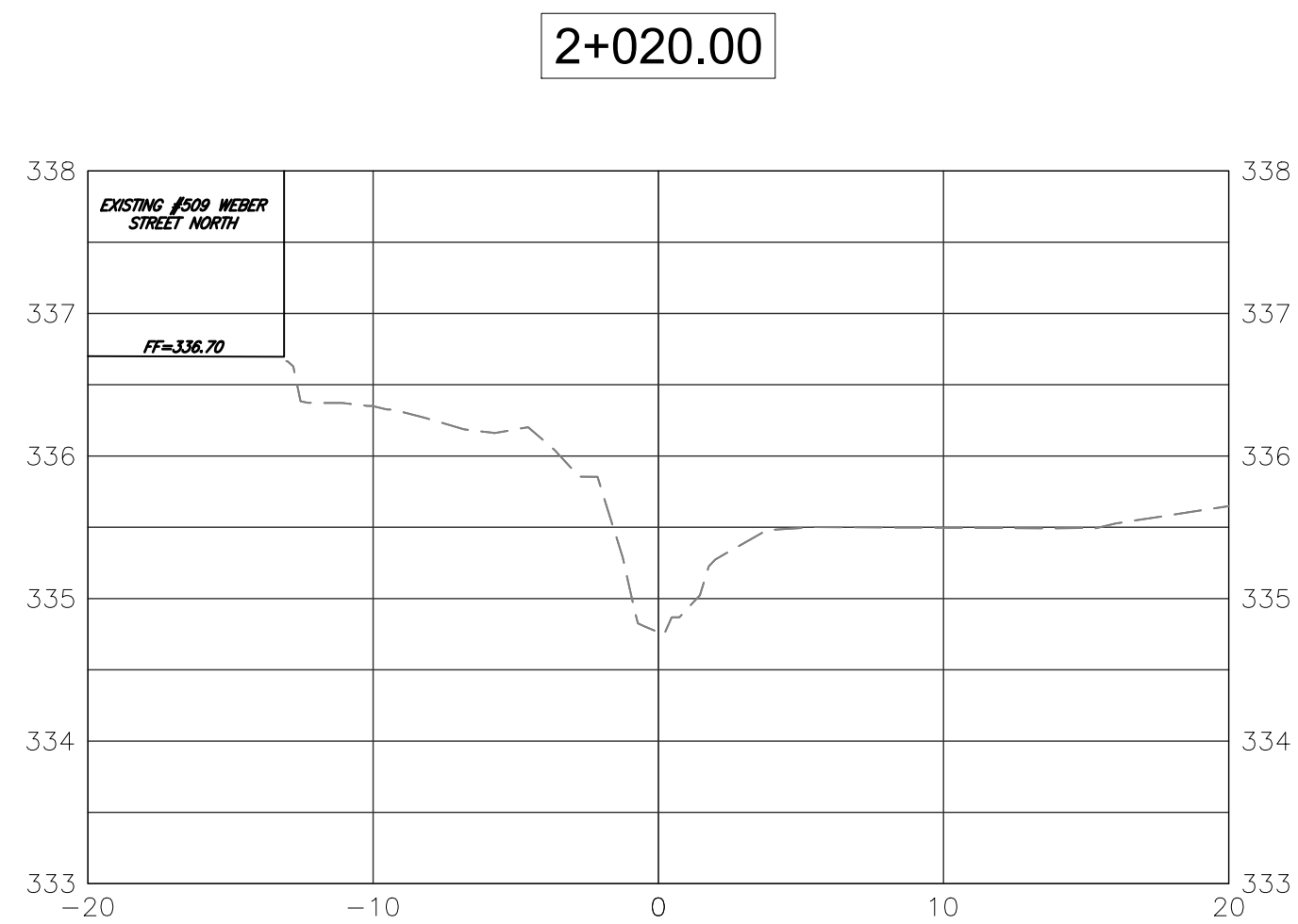
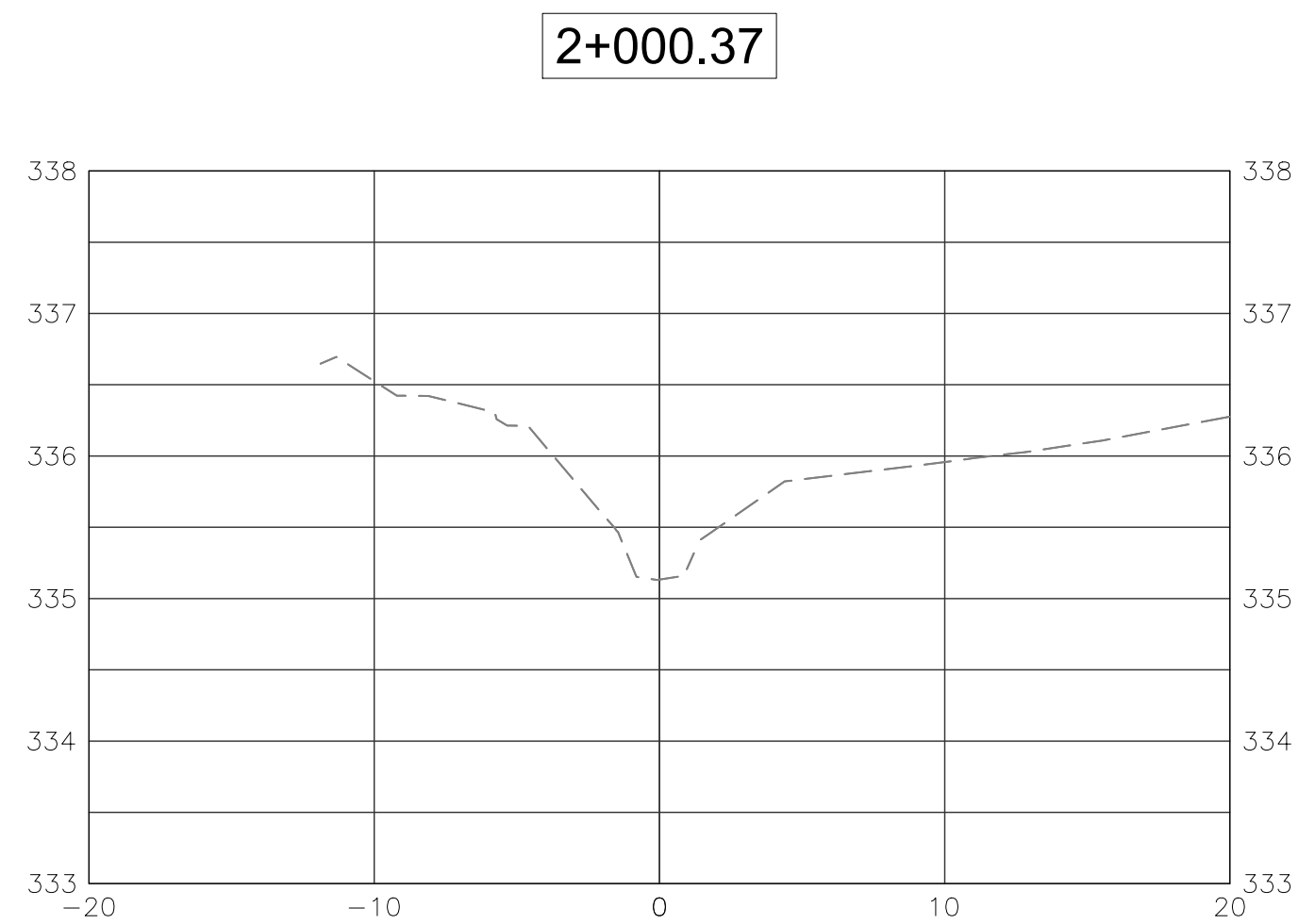
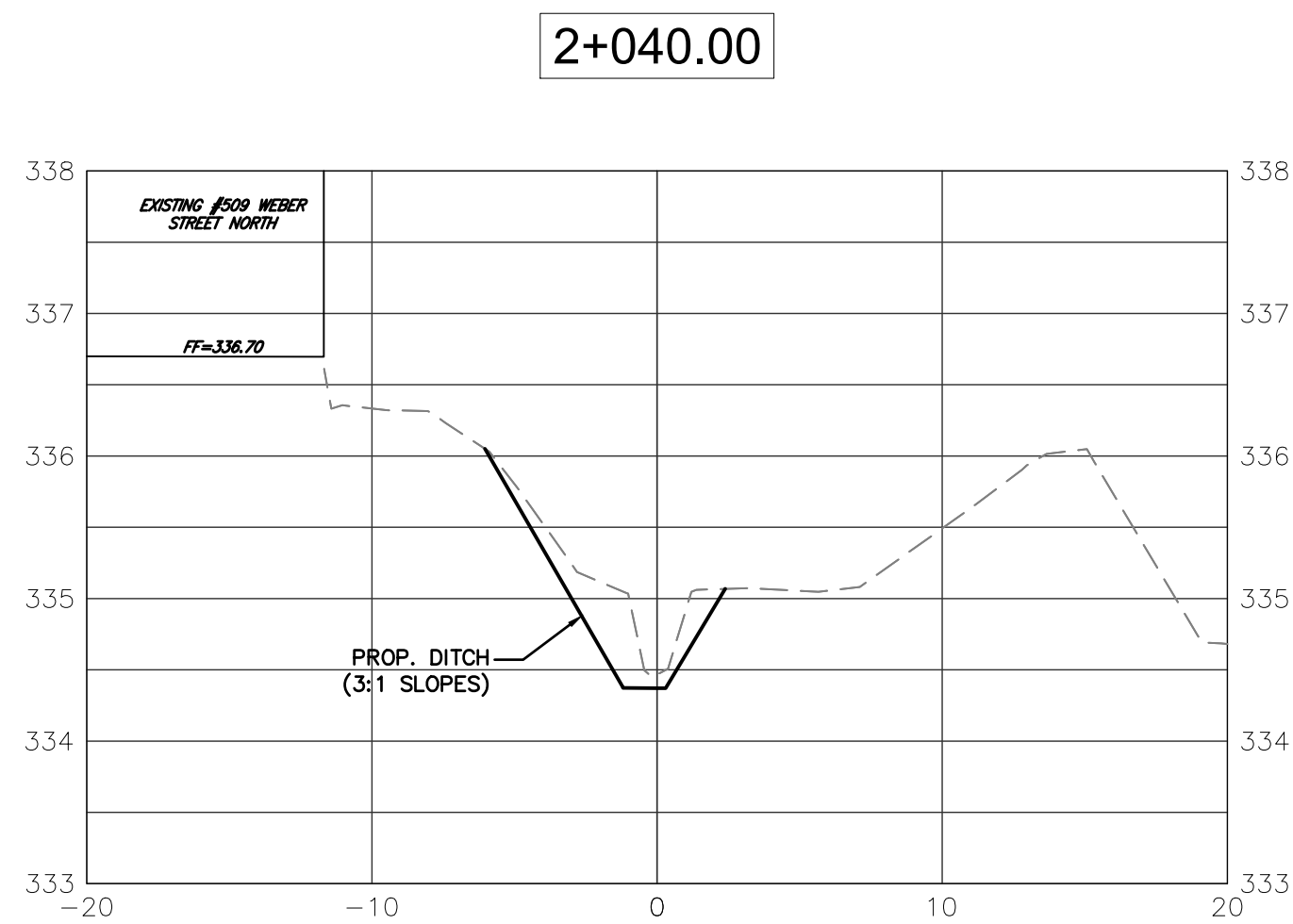
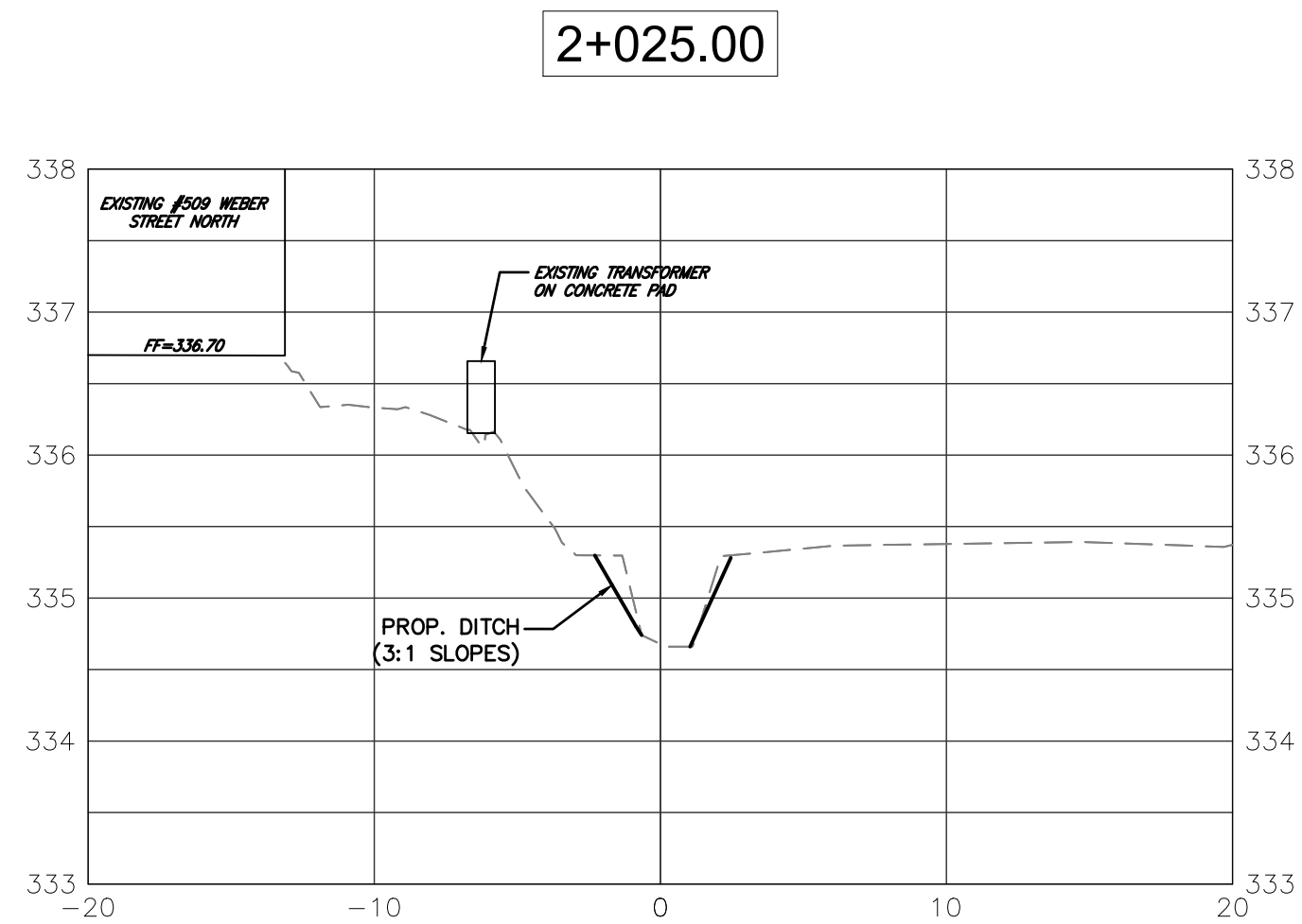
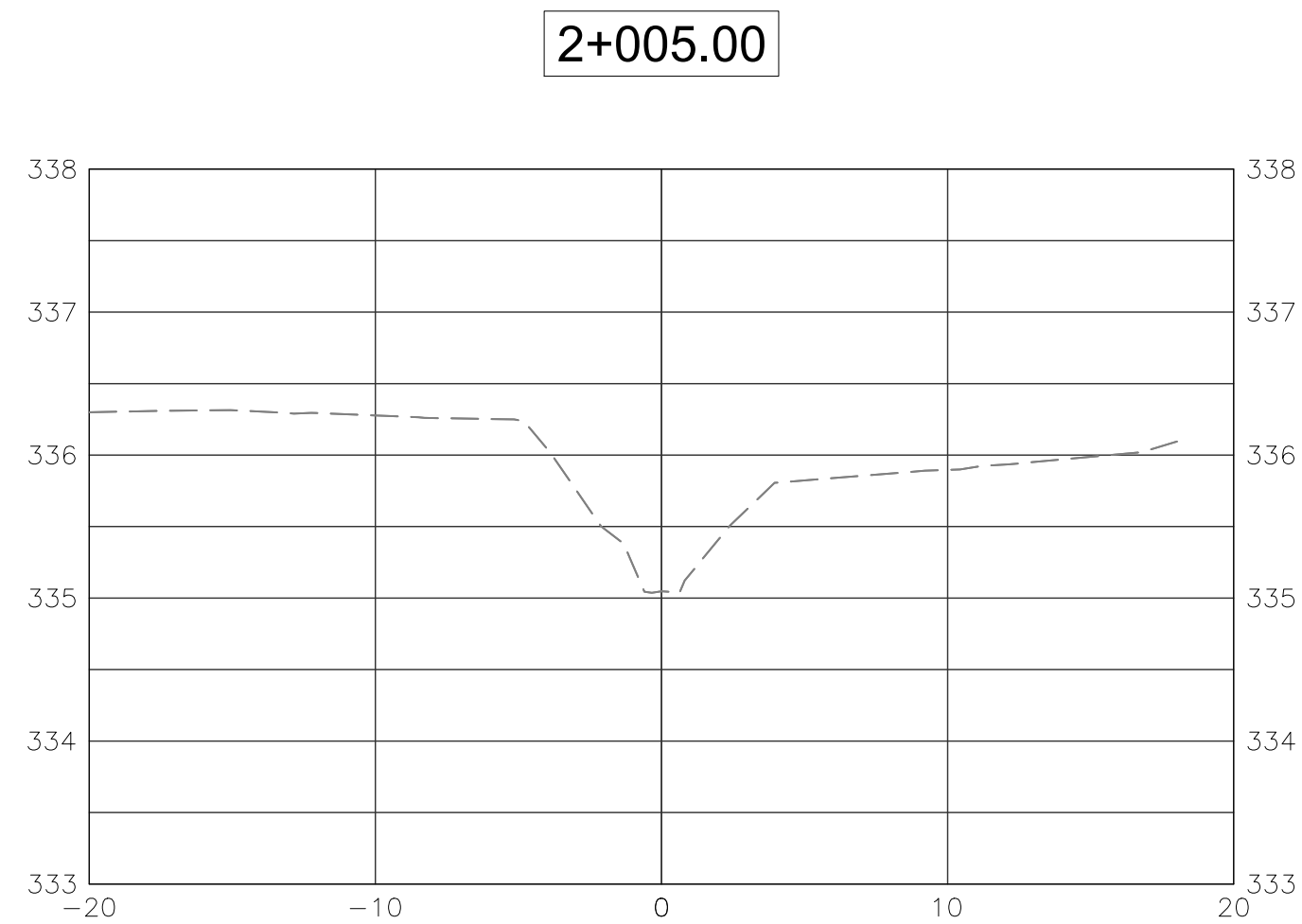
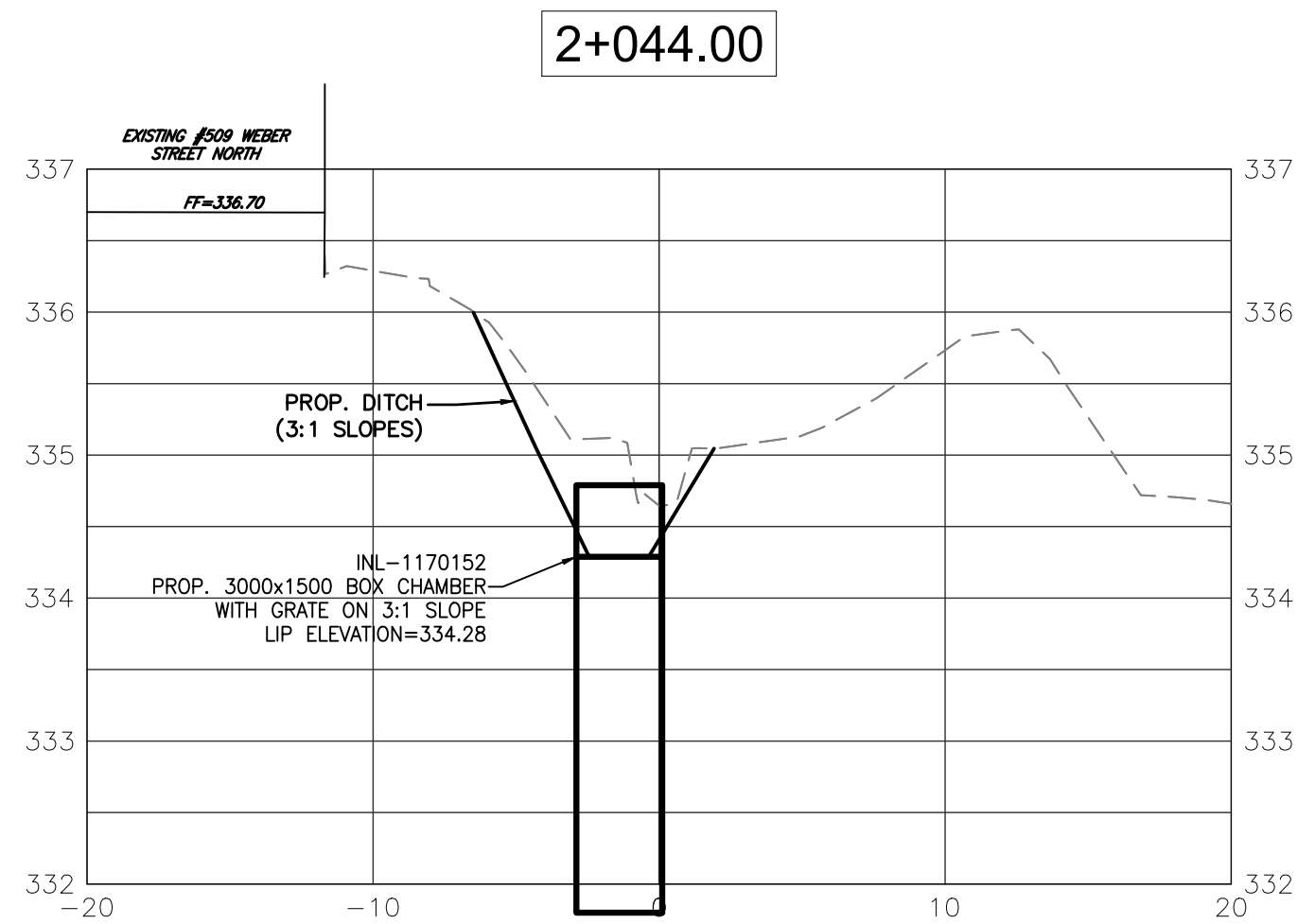
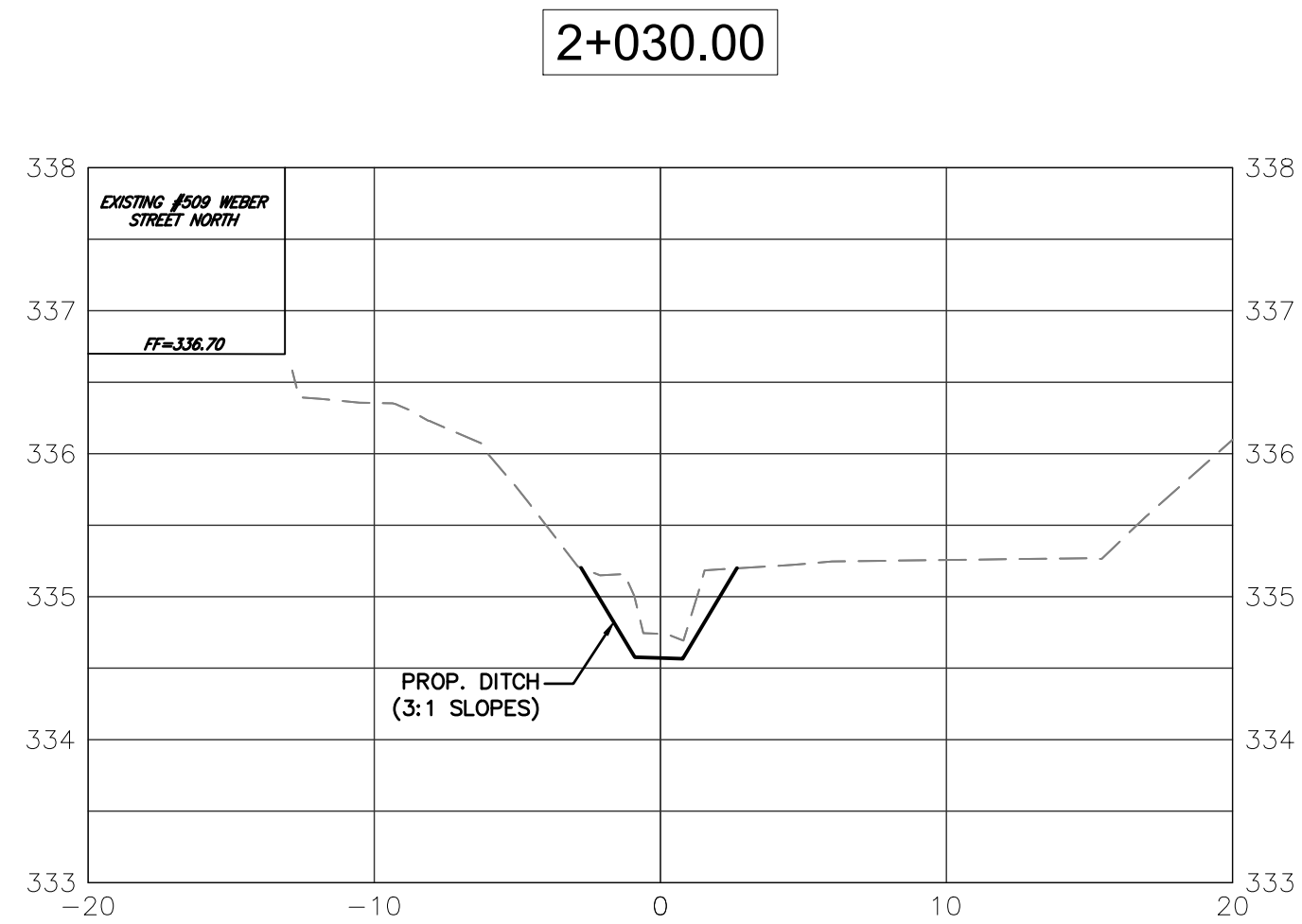
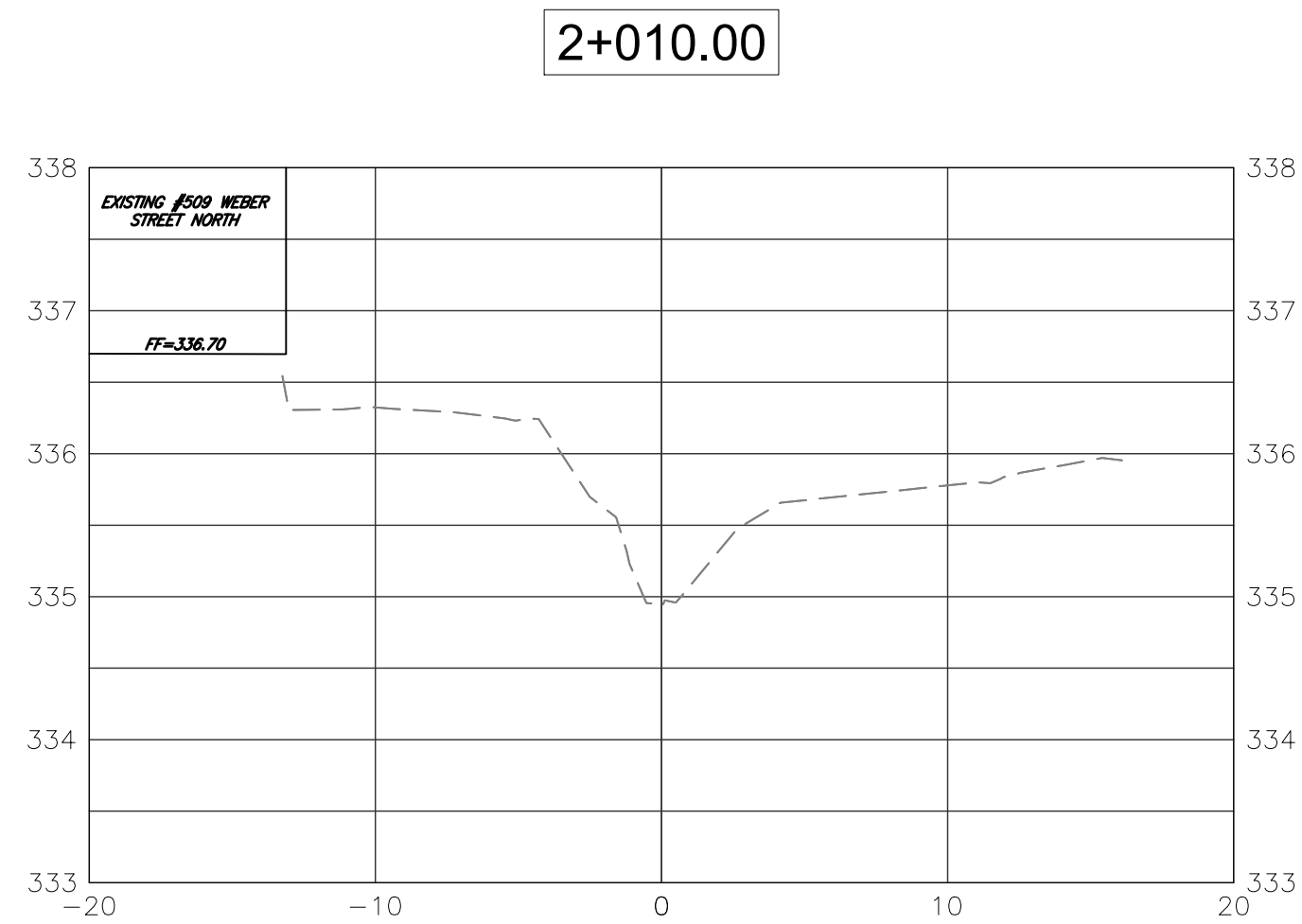
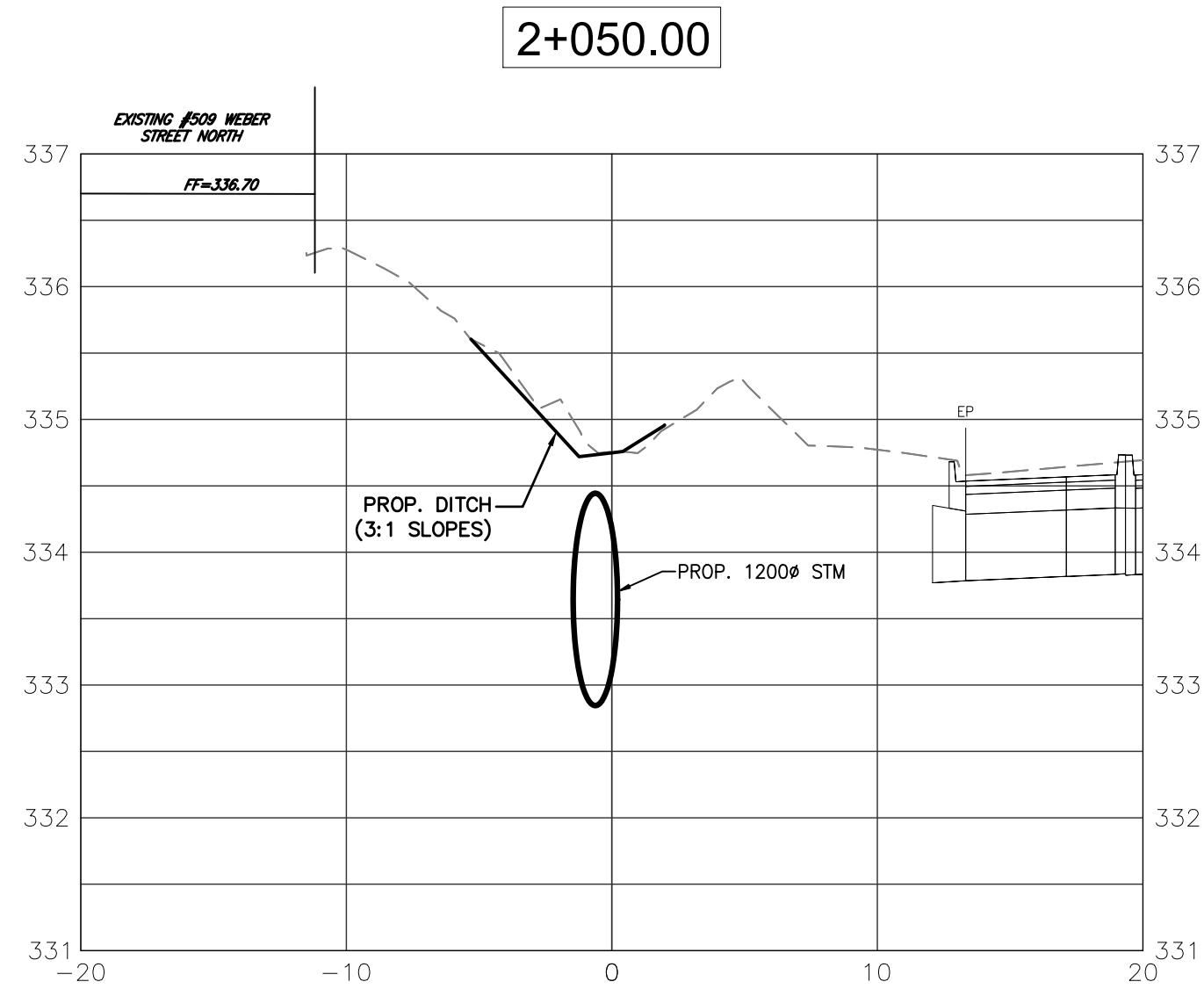
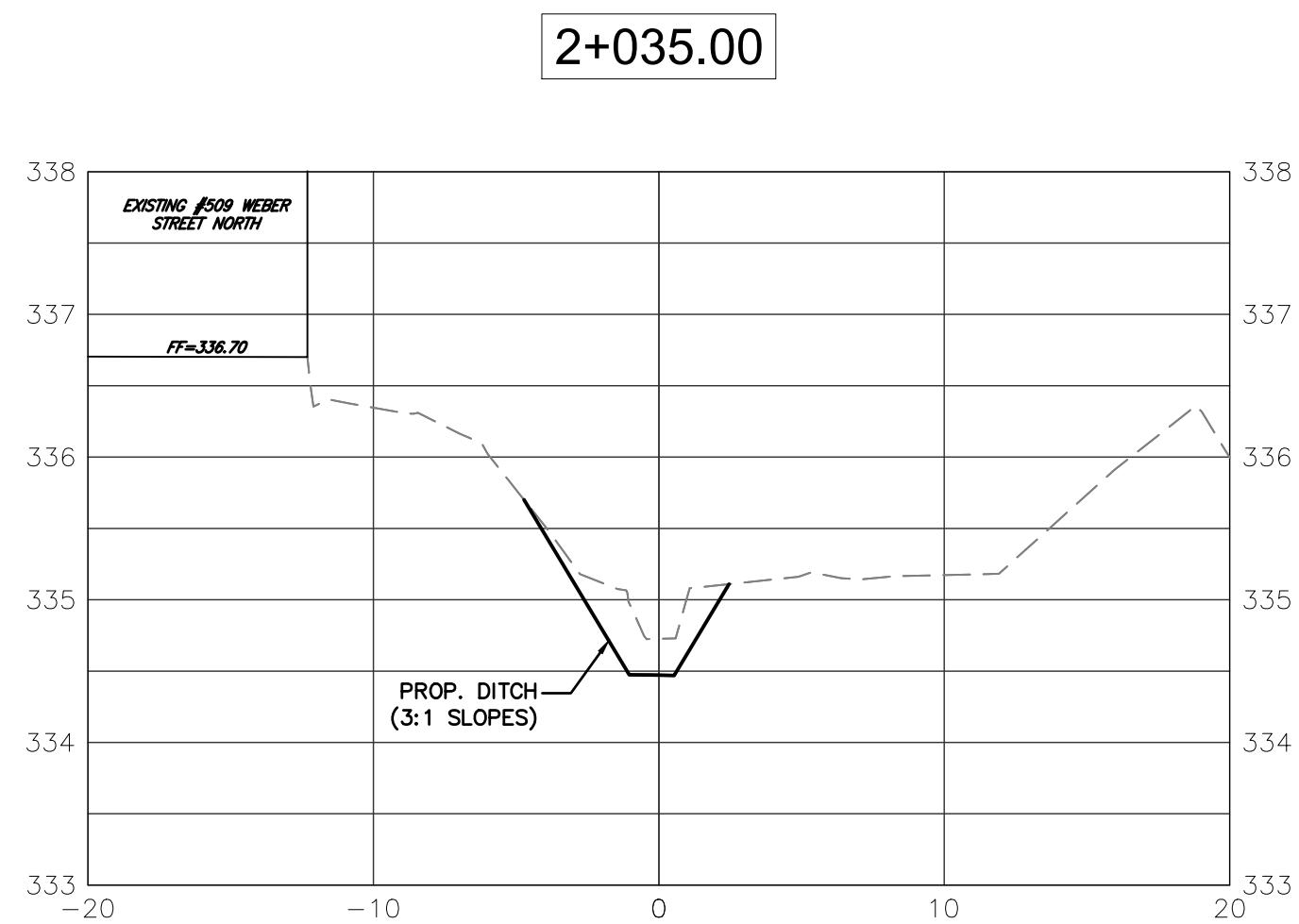
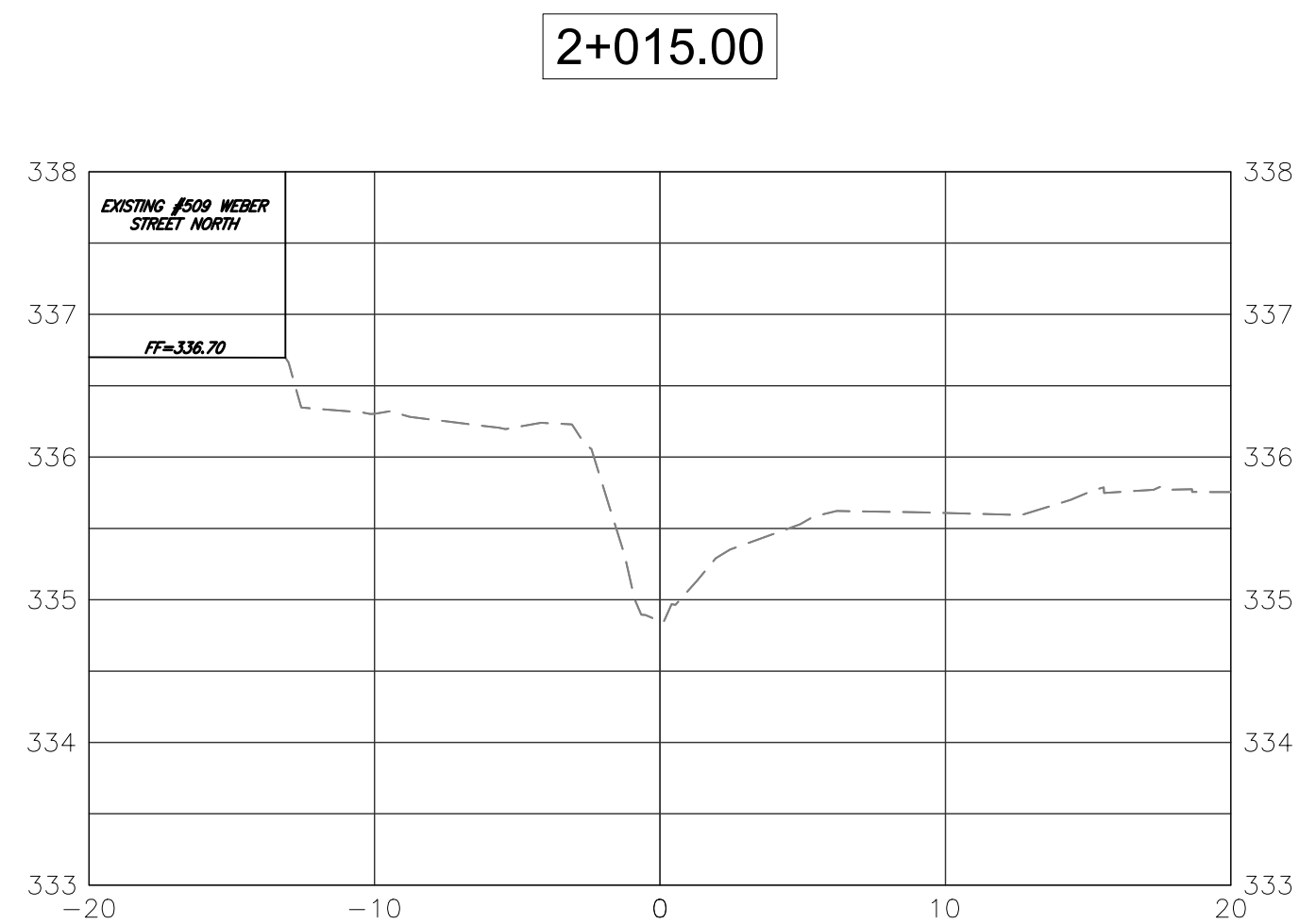
BENCHMARKS:
BM: WO-14 ELEV=338.596m
NAIL IN HYDRO POLE (TRANSFORMER), 40m WEST OF
WAGNERS CORNER, SOUTH SIDE OF REGIONAL ROAD 15
CC100 ELEV=334.805m
OUT CROSS SET IN NORTH EAST CORNER OF RIGHT OF WAY
OF BOX CULVERT SOUTH WEST CORNER OF LONGWOOD DRIVE
AND ALBERT STREET INTERSECTION.

S.I.P. 01/10/25	TENDER -- ADDENDUM 1
S.I.P. 12/06/24	ISSUED FOR TENDER
S.I.P. 11/13/24	ISSUED FOR 100% DESIGN
S.I.P. 10/01/24	ISSUED FOR 90% SUBMISSION
G.E.A. 09/12/24	ISSUED FOR GRCA APPROVAL
G.E.A. 07/30/24	ISSUED FOR 60% SUBMISSION
G.E.A. 06/11/24	ISSUED FOR 30% SUBMISSION
INT.	DATE
	REVISIONS

CITY OF WATERLOO
INTEGRATED PLANNING AND PUBLIC WORKS

SEAL (GEI)

**ALBERT STREET
SECTIONS
1+120 TO 1+230**
CITY OF WATERLOO
DATE: MAY 2024 DESIGNED BY: S.I.P.
SCALE: HORIZ = 1:250 DRAWN BY: E.A.
VERT = 1:50 CHECKED BY: S.I.P.
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15-1578



GEI Consultants
GEI CONSULTANTS, INC.
330 TRILLIUM DRIVE
UNIT D
KITCHENER, ONTARIO N2E 3J2
519.748.1440

CONTRACT RFT25-01

BENCHMARKS:

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INT.	DATE	REVISIONS

CITY OF WATERLOO
INTEGRATED PLANNING AND PUBLIC WORKS

SEAL (GEI)

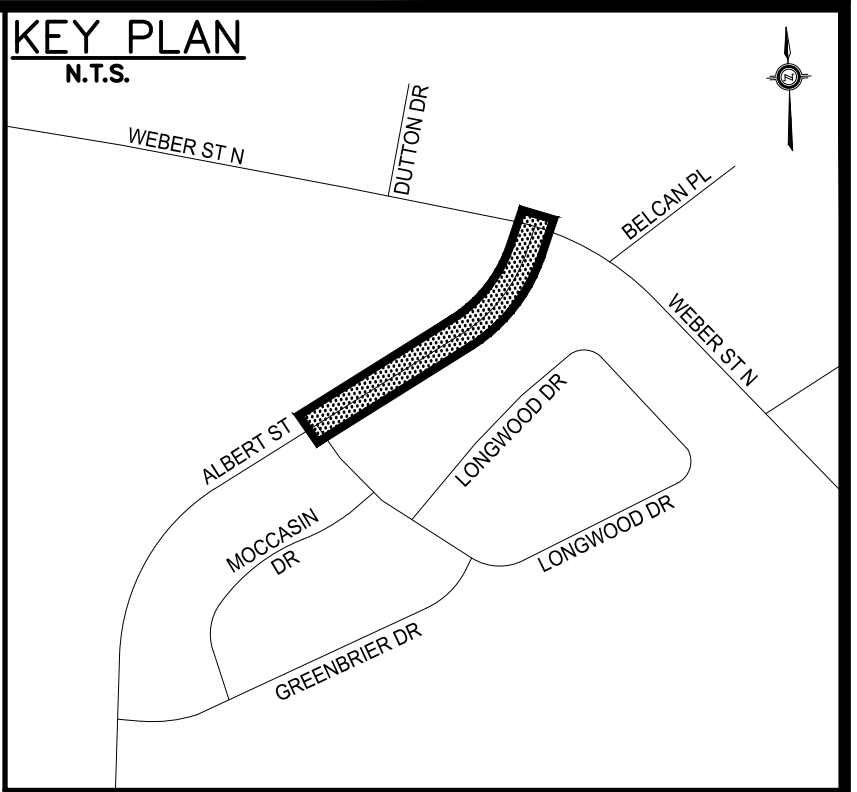
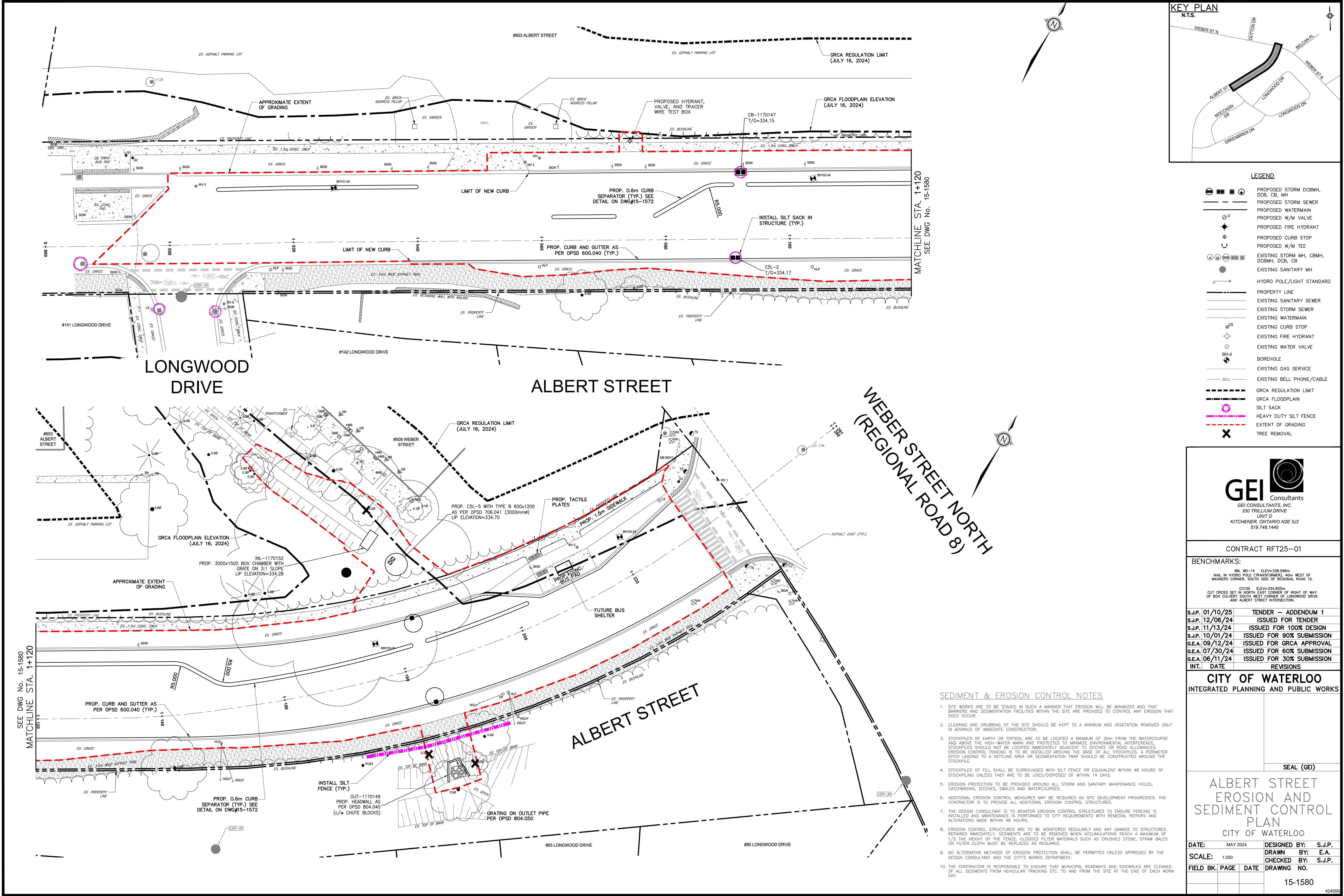
**CULVERT SECTION
SECTIONS
2+000 TO 2+050**

CITY OF WATERLOO

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15-1579

424058



- LEGEND**
- PROPOSED STORM DCBMH, DCB, CB, MH
 - PROPOSED STORM SEWER
 - PROPOSED W/M VALVE
 - PROPOSED FIRE HYDRANT
 - PROPOSED CURB STOP
 - PROPOSED W/M TEE
 - EXISTING STORM MH, CBMH, DCB, CB
 - EXISTING SANITARY MH
 - HYDRO POLE/LIGHT STANDARD
 - PROPERTY LINE
 - EXISTING SANITARY SEWER
 - EXISTING STORM SEWER
 - EXISTING WATERMAIN
 - EXISTING CURB STOP
 - EXISTING FIRE HYDRANT
 - EXISTING WATER VALVE
 - BOREHOLE
 - EXISTING GAS SERVICE
 - EXISTING BELL PHONE/CABLE
 - GRCA REGULATION LIMIT
 - GRCA FLOODPLAIN
 - SILT SACK
 - HEAVY DUTY SILT FENCE
 - EXTENT OF GRADING
 - TREE REMOVAL

GEI Consultants
GEI CONSULTANTS, INC.
330 TRILLIUM DRIVE
UNIT D
KITCHENER, ONTARIO N2E 3J2
519.748.1440

CONTRACT RFT25-01

BENCHMARKS:

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OUT CROSS SET IN NORTH EAST CORNER OF RIGHT OF WAY OF BOX CULVERT SOUTH WEST CORNER OF LONGWOOD DRIVE AND ALBERT STREET INTERSECTION.

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CITY OF WATERLOO
INTEGRATED PLANNING AND PUBLIC WORKS

SEAL (GEI)

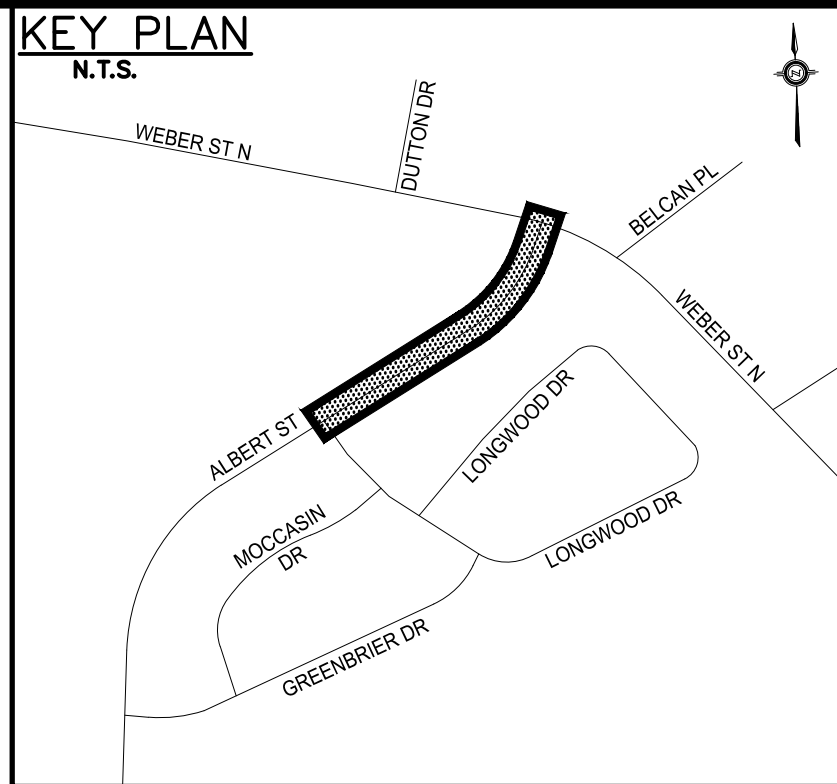
**ALBERT STREET
EROSION AND
SEDIMENT CONTROL
PLAN**
CITY OF WATERLOO

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15-1580

SEDIMENT & EROSION CONTROL NOTES

- SITE WORKS ARE TO BE STAGED IN SUCH A MANNER THAT EROSION WILL BE MINIMIZED AND THAT BARRIERS AND SEDIMENTATION FACILITIES WITHIN THE SITE ARE PROVIDED TO CONTROL ANY EROSION THAT DOES OCCUR.
- CLEARING AND GRUBBING OF THE SITE SHOULD BE KEPT TO A MINIMUM AND VEGETATION REMOVED ONLY IN ADVANCE OF IMMEDIATE CONSTRUCTION.
- STOCKPILES OF EARTH OR TOPSOIL ARE TO BE LOCATED A MINIMUM OF 30m FROM THE WATERCOURSE AND ABOVE THE HIGH-WATER MARK AND PROTECTED TO MINIMIZE ENVIRONMENTAL INTERFERENCE. STOCKPILES SHOULD NOT BE LOCATED IMMEDIATELY ADJACENT TO DITCHES OR ROAD ALLOWANCES. EROSION CONTROL FENCING IS TO BE INSTALLED AROUND THE BASE OF ALL STOCKPILES. A PERIMETER DITCH LEADING TO A SETTLING AREA OR SEDIMENTATION TRAP SHOULD BE CONSTRUCTED AROUND THE STOCKPILE.
- STOCKPILES OF FILL SHALL BE SURROUNDED WITH SILT FENCE OR EQUIVALENT WITHIN 48 HOURS OF STOCKPILING UNLESS THEY ARE TO BE USED/DISPOSED OF WITHIN 14 DAYS.
- EROSION PROTECTION TO BE PROVIDED AROUND ALL STORM AND SANITARY MAINTENANCE HOLES, CATCHBASINS, DITCHES, SWALES AND WATERCOURSES.
- ADDITIONAL EROSION CONTROL MEASURES MAY BE REQUIRED AS SITE DEVELOPMENT PROGRESSES. THE CONTRACTOR IS TO PROVIDE ALL ADDITIONAL EROSION CONTROL STRUCTURES.
- THE DESIGN CONSULTANT IS TO MONITOR EROSION CONTROL STRUCTURES TO ENSURE FENCING IS INSTALLED AND MAINTENANCE IS PERFORMED TO CITY REQUIREMENTS WITH REMEDIAL REPAIRS AND ALTERATIONS MADE WITHIN 48 HOURS.
- EROSION CONTROL STRUCTURES ARE TO BE MONITORED REGULARLY AND ANY DAMAGE TO STRUCTURES REPAIRED IMMEDIATELY. SEDIMENTS ARE TO BE REMOVED WHEN ACCUMULATIONS REACH A MAXIMUM OF 1/2 THE HEIGHT OF THE FENCE. CLOGGED FILTER MATERIALS SUCH AS CRUSHED STONE, STRAW BALES OR FILTER CLOTH MUST BE REPLACED AS REQUIRED.
- NO ALTERNATIVE METHODS OF EROSION PROTECTION SHALL BE PERMITTED UNLESS APPROVED BY THE DESIGN CONSULTANT AND THE CITY'S WORKS DEPARTMENT.
- THE CONTRACTOR IS RESPONSIBLE TO ENSURE THAT MUNICIPAL ROADWAYS AND SIDEWALKS ARE CLEANED OF ALL SEDIMENTS FROM VEHICULAR TRACKING ETC. TO AND FROM THE SITE AT THE END OF EACH WORK DAY.



- LEGEND
- PROPOSED STORM DCBMH, DCB, CB, MH
 - PROPOSED STORM SEWER
 - PROPOSED W/M VALVE
 - PROPOSED FIRE HYDRANT
 - PROPOSED CURB STOP
 - PROPOSED W/M TEE
 - EXISTING STORM MH, CBMH, DCBMH, DCB, CB
 - EXISTING SANITARY MH
 - HYDRO POLE/LIGHT STANDARD
 - PROPERTY LINE
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 - EXISTING STORM SEWER
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 - EXISTING FIRE HYDRANT
 - EXISTING WATER VALVE
 - BOREHOLE
 - EXISTING GAS SERVICE
 - EXISTING BELL PHONE/CABLE
 - PROP. ELEVATION
 - EX. ELEVATION
 - PROP. GRADE
 - EXTENT OF GRADING



CONTRACT RFT25-01

BENCHMARKS:

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CITY OF WATERLOO
INTEGRATED PLANNING AND PUBLIC WORKS

SEAL (GEI)

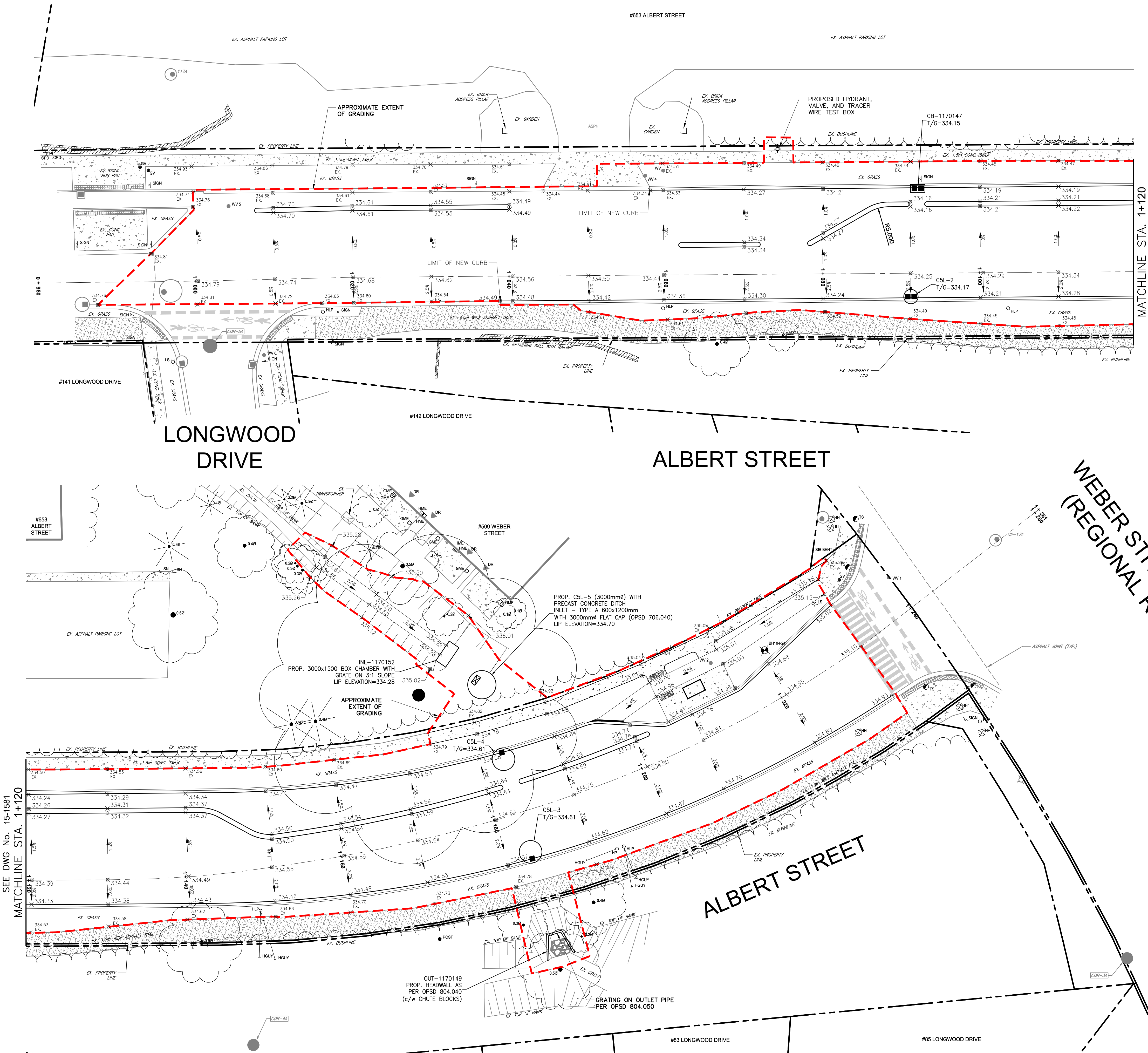
ALBERT STREET
GRADING PLAN
0+980 TO 1+260

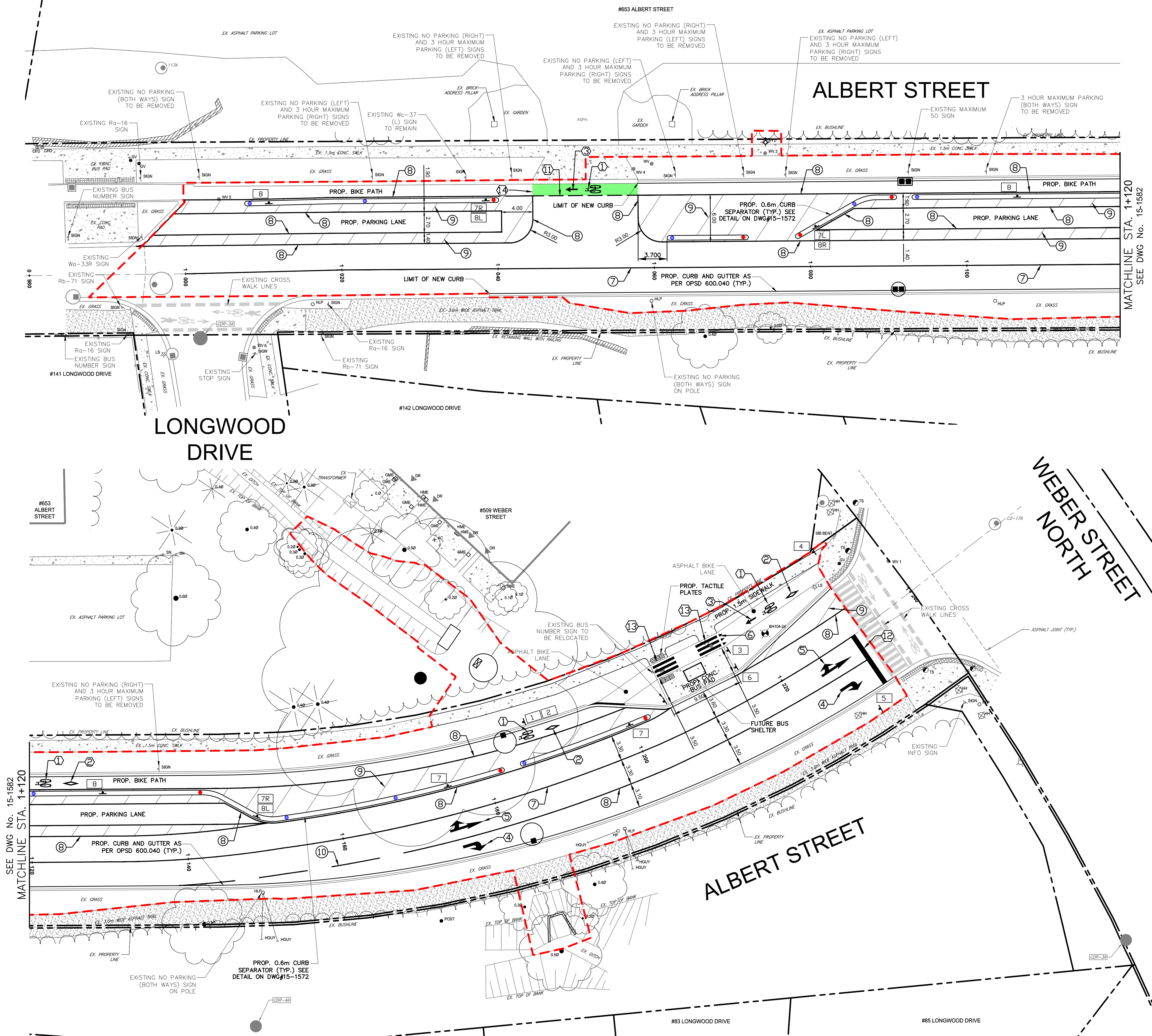
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15-1581

424058





SEE DWG No. 15-1582
MATCHLINE STA. 1+120

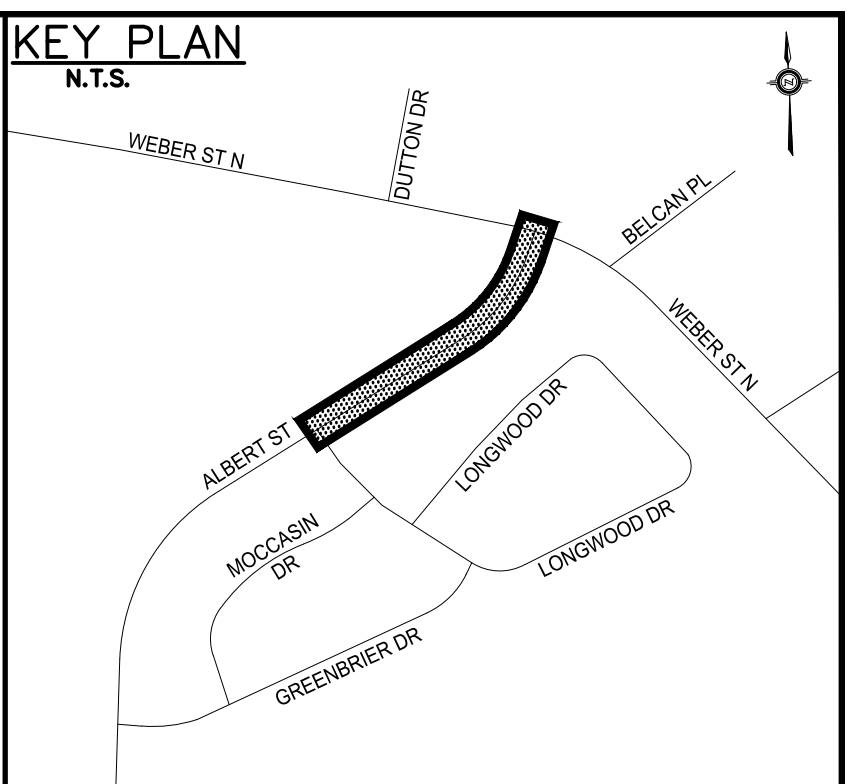
MATCHLINE STA. 1+120
SEE DWG No. 15-1582

- PAVEMENT MARKINGS LEGEND**
- SOLID WHITE BICYCLE SYMBOL
 - SOLID WHITE BICYCLE LANE DIAMOND SYMBOL
 - SOLID WHITE BICYCLE THROUGH ARROW
 - SOLID WHITE RIGHT TURN ARROW
 - SOLID WHITE LEFT AND THROUGH TURN ARROW
 - SOLID WHITE YIELD LINE (SHARK'S TEETH)
 - 10cm SOLID YELLOW LINE
 - 10cm SOLID WHITE LINE
 - 20cm SOLID WHITE HATCH LINE AT 45 DEGREES AND 5m SPACING
 - 10cm WHITE BROKEN LINE AT 3m x 3m SPACING
 - 10cm WHITE BROKEN LINE AT 1m x 1m SPACING
 - 60cm SOLID WHITE STOP BAR
 - 30cm SOLID WHITE LINE AT 0.3m SPACING
 - GREEN SURFACE TREATMENT

- NOTE:
- ALL PAVEMENT MARKINGS FOR BIKE LANES, PARKING AREAS, STOP BARS AND TURN ARROWS TO BE THERMOPLASTIC PAINT (DENOTED WITH ①)
 - ALL LANE LINES, INCLUDING CENTER LINES, LANE LINES AND EDGE LINES TO BE WATER-BASED PAINT (DENOTED WITH ②)

- SIGN LEGEND**
- | | |
|---|--------------------------|
| 1 | Rb-84A (OTM)(600x600 mm) |
| 2 | Rb-84t (OTM)(200x600 mm) |
| 3 | Rb-16 (OTM)(300x450 mm) |
| 4 | Rb-72A (OTM)(300x450 mm) |
| 5 | Rb-71 (OTM)(300x450 mm) |
| 6 | Wb-33R (OTM)(300x900 mm) |
| 7 | Rb-51 (OTM) (300x300 mm) |
| 8 | Rb-53 (300x450 mm) |

- LEGEND**
- | | |
|----|---|
| X | PROPOSED SIGN TO BE FIXED ON NEW POLE |
| XL | SIGN TO HAVE LEFT ARROW |
| XR | SIGN TO HAVE RIGHT ARROW |
| • | PROPOSED BLACK FLEXIBLE BOLLARDS WITH YELLOW REFLECTIVE SHEETING TO BE PLACED 65cm FROM LEADING EDGE OF SEPARATOR CURBS |
| • | PROPOSED WHITE FLEXIBLE BOLLARDS WITH WHITE REFLECTIVE SHEETING TO BE PLACED 65cm FROM ENDING EDGE OF SEPARATOR CURBS |



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CITY OF WATERLOO
INTEGRATED PLANNING AND PUBLIC WORKS

SEAL (GEI)

ALBERT STREET
PAVEMENT MARKING
AND SIGNAGE PLAN

CITY OF WATERLOO

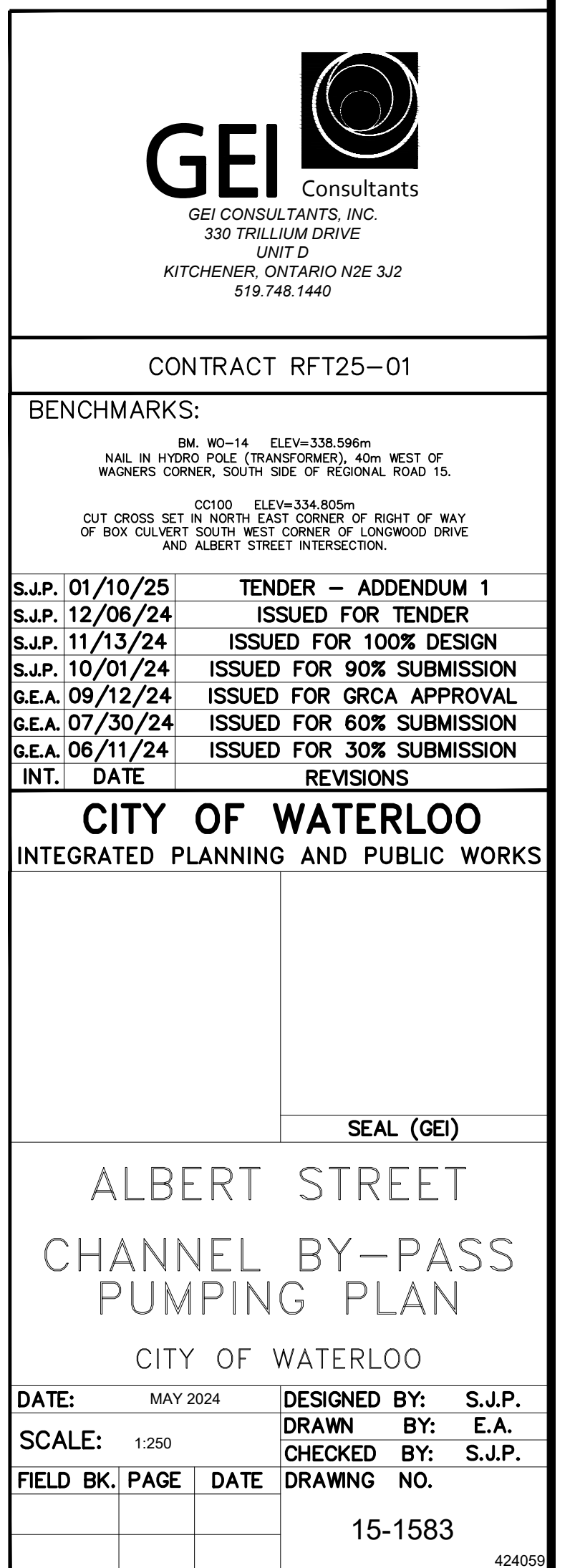
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WEBER STREET NORTH
(REGIONAL ROAD 8)

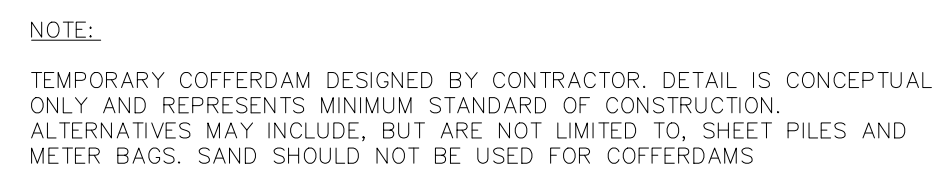
A map of the intersection area showing Weber St N, Dutton Dr, Belcan Pl, Albert St, Longwood Dr, Moccasin Dr, and Greenbrier Dr. A shaded area indicates the proposed intersection of Albert St and Longwood Dr.

	PROPOSED STORM DCBM, DCB, CB, MH
	PROPOSED STORM SEWER
	PROPOSED WATERMAIN
	PROPOSED W/M VALVE
	PROPOSED FIRE HYDRANT
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	EXISTING STORM MH, CBMH, DCBMH, DCB, CB
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	EXISTING WATERMAIN
	EXISTING CURB STOP
	EXISTING FIRE HYDRANT
	EXISTING WATER VALVE
	BOREHOLE
	EXISTING GAS SERVICE
	EXISTING BELL PHONE/CABLE
	GRCA REGULATION LIMIT
	GRCA FLOODPLAIN
	TREE REMOVAL



1. ANY Dewatering operations required to complete the work in the DRY are NOT to EXCEED 50,000 LITRES PER DAY WITHOUT A MINISTRY OF THE ENVIRONMENT, CONSERVATION AND PARKS (MECP) PERMIT TO TAKE WATER OR COMPLETION OF AN ENVIRONMENTAL ACTIVITY AND SECTOR REGISTRY (AS APPLICABLE).
2. THE CONTRACTOR IS RESPONSIBLE FOR PREPARATION, COST AND SUBMISSION OF ALL REPORTS, PLANS AND APPLICATIONS REQUIRED TO SECURE A PERMIT TO TAKE WATER (CATEGORY 1, 2 OR 3) OR ENVIRONMENTAL ACTIVITY AND SECTOR REGISTRY (AS APPLICABLE) FROM THE MECP FOR DEWATERING OPERATIONS WHICH EXCEED 50,000 LITRES PER DAY.
3. THE CONTRACTOR IS RESPONSIBLE FOR THE DESIGN OF TEMPORARY WORKSITE ISOLATION, DIVERSION AND DEWATERING SYSTEMS. DIVERSION AND WORK SITE ISOLATION DETAILS IN THE DRAWING SET ARE FOR SCHEMATIC PURPOSES ONLY. THE CONTRACTOR SHALL PROVIDE SUBMISSIONS OF ALL RELEVANT DETAILS FOR THESE WORKS TO THE CONTRACT ADMINISTRATOR FOR REVIEW. ALTERNATIVE SCHEMATICS ARE SUBJECT TO REVIEW BY REGULATORY AGENCIES AND ANY DEVIATION FROM SUCH REVIEWS ARE THE RESPONSIBILITY OF THE CONTRACTOR.
4. ALL MATERIAL AND EQUIPMENT USED FOR THE PURPOSE OF OR GENERATED DURING COMPLETION OF THE WORKS SHALL BE OPERATED, STORED AND REMOVED FROM SITE IN A MANNER THAT PREVENTS ANY DELETERIOUS SUBSTANCE. (EG. PETROLEUM PRODUCTS, SILT, DEBRIS, ETC.) FROM ENTERING THE WATERCOURSE.
5. IN WATER WORK IS TO OCCUR BETWEEN JULY 1 AND MARCH 14 (INCLUSIVE).
6. ALL DISTURBED AREAS SHALL BE STABILIZED AND RE-VEGETATED AS REQUIRED UPON COMPLETION OF WORK AND RESTORED TO A PRE-DISTURBED STATE OR BETTER, INCLUDING RE-INSTATEMENT AND RE-STABILIZATION OF THE WATERCOURSE.
7. SEDIMENT AND EROSION CONTROL MEASURES SHALL BE IMPLEMENTED PRIOR TO COMMENCEMENT OF WORK, AND MAINTAINED THROUGHOUT CONSTRUCTION, TO PREVENT ENTRY OF SEDIMENT INTO THE WATERCOURSE OR THE MOVEMENT OF RE-SUSPENDED SEDIMENT.
8. SEDIMENT AND EROSION CONTROL MEASURES SHALL BE LEFT IN PLACE UNTIL ALL DISTURBED AREAS HAVE BEEN STABILIZED.
9. NO WORK IS PERMITTED IN THE WATERCOURSE AND NO MATERIAL SHALL BE RELEASED INTO THE WATERCOURSE. WORK IS TO BE COMPLETED IN THE DRY.
10. NO MACHINERY SHALL CROSS THE WATERCOURSE AT ANY TIME. MACHINERY THAT IS REQUIRED ON THE OPPOSITE SIDE OF THE WATERCOURSE WHILE THE STRUCTURE IS BEING REPLACED SHALL BE DRIVEN ACROSS THE STRUCTURE ITSELF, HAULED BY FLOAT, OR DRIVEN AROUND ON ROADS.
11. THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING ANY TEMPORARY PROTECTION MEASURES OR DEBRIS CONTAMINATION SYSTEMS NECESSARY TO PREVENT ANY TEMPORARY EROSION OR SEDIMENT FROM ENTERING THE WATERCOURSE. SUCH MATERIAL SHALL BE REMOVED FROM TEMPORARY PROTECTION MEASURES REGULARLY AND AT THE END OF EACH DAY.
12. THE SEDIMENT AND EROSION CONTROL MEASURES MAY BE SUBJECT TO CHANGE OR MODIFICATIONS AS A RESULT OF SITE DEVELOPMENT OR CHANGES ON-SITE. REVIEW AGENCIES ARE TO BE NOTIFIED ON ANY SUCH CHANGE.
13. ADDITIONAL SILT FENCE AND CLEAR STONE SHALL BE KEPT ON-SITE FOR REPAIRS TO PROPOSED SEDIMENT AND EROSION CONTROL FEATURES.
14. SEDIMENT LADEN WATERWAYS ARE TO BE TREATED PRIOR TO DISCHARGING INTO THE WATERCOURSE.
15. MACHINERY, VEHICLES, EQUIPMENT, AND PUMPS SHALL NOT BE REFUELED OR CLEANED WITHIN 30 METRES OF THE WATERCOURSE.
16. ALL MACHINERY AND EQUIPMENT MAINLY TO BE USED TO PREPARE THE SITE SHALL ARRIVE ON-SITE IN A CLEAN AND WASHED CONDITION.
17. AN EMERGENCY SPILL KIT SHALL BE KEPT ON SITE AT ALL TIMES. THE CONTRACTOR SHALL COMPLY WITH ALL MECP REQUIREMENTS AND SHALL REPORT SPILLS TO THE SPILLS ACTION CENTRE (1-800-268-6060).
18. MEASURES SHALL BE TAKEN TO PREVENT CONCRETE LEACHATE FROM ENTERING THE WATERCOURSE. ALL CEMENTITIOUS PRODUCTS INCLUDING CONCRETE, GROUT, AND MORTAR SHALL BE COMPLETELY ISOLATED FROM PRECIPITATION AND WATERCOURSE FLOW FOR A MINIMUM OF 48 HOURS (OR UNTIL SIGNIFICANTLY CURED) TO ALLOW THE PH TO REACH NEUTRAL LEVELS. CONTAMINATION FACILITIES SHALL BE PROVIDED AT THE SITE FOR WASH DOWN OF CONCRETE TRUCKS, PUMPS, EQUIPMENT, AND TOOLS AS REQUIRED.
19. SMALL MESH SEINE TO BE USED TO EXCLUDE FISH FROM THE PROJECT AREA.
20. THE CONTRACTOR SHALL MONITOR THE WEEKLY WEATHER FORECAST ON A DAILY BASIS AND PREPARE THE SITE ADEQUATELY FOR CONDITIONS THAT MAY CAUSE WATER LEVELS TO RISE.
21. ALL GRADES WITHIN THE REGULATORY FLOOD PLAIN AREA TO BE MAINTAINED OR MATCHED UNLESS OTHERWISE APPROVED.
22. PRIOR TO PLACING COFFERDAM MATERIAL IN-WATER, ATTEMPTS SHOULD BE MADE TO SCARE ANY FISH AWAY FROM THE WORK AREA (E.G., BY MAKING NOISE ON THE BANK, OR BANGING THE BUCKET OF AN EXCAVATOR ON A ROCKY PORTION OF THE STREAMBED) TO MINIMIZE THE POTENTIAL FOR INJURY OR MORTALITY.
23. ONCE COFFERDAMS ARE INSTALLED, IF WATER REMAINS PRESENT IN THE ISOLATED AREA, A FISH SALVAGE SHOULD BE IMPLEMENTED, IN ACCORDANCE WITH THE REQUIREMENTS OF ANY FEDERAL OR PROVINCIAL PERMITS THAT MAY BE REQUIRED.
24. THE EXTENT OF THE CONSTRUCTION DISTURBANCE SHOULD BE MINIMIZED TO THE EXTENT POSSIBLE TO MINIMIZE THE AMOUNT OF RIPARIAN VEGETATION DISTURBANCE / REMOVAL REQUIRED. EQUIPMENT WILL WORK FROM THE EXISTING ROADWAY TO THE MAXIMUM EXTENT POSSIBLE. VEGETATION REMOVAL SHOULD BE COMPLETED AS CLOSE AS POSSIBLE TO THE START OF CONSTRUCTION TO MINIMIZE THE AMOUNT OF TIME SOILS ARE EXPOSED TO POTENTIAL EROSION.
25. WITH THE POTENTIAL EXCEPTION OF FILL BEHIND THE NEW DOWNSTREAM OUTFALL HEADWALL, ONLY CLEAN MATERIAL, FREE OF FINE SEDIMENTS (E.G., SILTS AND CLAYS) WILL BE USED FOR THE PROPOSED PROJECT.

2. SEE PLAN FOR LOCATION OF DEWATERING EQUIPMENT.
3. THE OWNER OR OPERATOR SHALL PROVIDE, OPERATE, AND MAINTAIN DEWATERING SYSTEMS OF SUFFICIENT SIZE AND CAPACITY TO PERMIT EXCAVATION AND SUBSEQUENT CONSTRUCTION IN DRY CONDITIONS AND TO LOWER THE WATER TABLE TO THE DEPTH OF THE EXCAVATION TO A MINIMUM OF 0.6m BELOW THE LOWEST POINT OF EXCAVATION AND CONTINUOUSLY MAINTAIN EXCAVATIONS FREE OF WATER UNTIL BACK-FILLED TO FINAL GRADE.
4. FILTER BAG TO BE A MINIMUM OF 30m (COLD WATER CREEKS) AND 10m (WARM WATER CREEKS) AWAY FROM THE RECEIVING WATER BODY.
5. REFER TO MANUFACTURER'S SPECIFICATIONS FOR CAPACITY AND SIZING DETAILS AS WELL AS PROPER INSTALLATION (i.e. CLAMPING PROCEDURE).
6. THE SEDIMENT BAG MUST BE SECURELY CLAMPED TO THE OUTSIDE OF THE DISCHARGE HOSE TO FORM A SECURE SEAL.
7. THE BAG MUST BE ROUTINELY MONITORED FOR EFFICIENCY (i.e. OUTFLOW) AND DEFICIENCIES IN THE BAG AND HOSE CLAMP, AND REPLACED OR REPAIRED ACCORDINGLY.



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